Aspen Engineering Suite

Installation Guide

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1 Installing Aspen Products

This chapter provides an overview of the aspenONE installation process, including the product requirements. This chapter contains the following:

- aspenONE Overview
- Aspen Engineering Suite Overview
- System Requirements

aspenONE Overview

aspenONE® is the comprehensive set of software solutions and professional services provided by AspenTech; these are designed to help process companies achieve their operational excellence objectives. AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient.

aspenONE solutions include the industry's leading:

- Simulation and design products in the aspenONE Engineering suite.
- Plant operations products in the aspenONE Manufacturing suite.
- Supply chain management products in the aspenONE Supply Chain suite.
- Predictive and prescriptive analytic products in the aspenONE Asset Performance Management suite.

The token-based aspenONE Licensing Model gives customers the flexibility to access and use any aspenONE product at precisely the time it is needed. This is especially critical in the dynamic market conditions of the process industries – whether during down economies or in high-growth periods. This enables customers to lower their risk while maximizing the return on their software investment.

Technical Support

AspenTech customers with a valid license and software maintenance agreement can register to access the online AspenTech Support Center at:

https://esupport.aspentech.com/

This Web support site allows you to:

- Access current product documentation
- Search for tech tips, solutions and frequently asked questions (FAQs)
- Search for and download application examples
- Search for and download service packs and product updates

- Submit and track technical issues
- Send suggestions
- Report product defects
- Review lists of known deficiencies and defects
- Registered users can also subscribe to our Technical Support e-Bulletins. These e-Bulletins are used to alert you to important technical support information such as:
    - Technical advisories
    - Product updates and releases

Customer support is also available by phone, fax, and email. The most up-to-date contact information is available at the AspenTech Support Center at https://esupport.aspentech.com/.

aspenONE Media

Unless you have specifically requested a USB drive, you will receive instructions on how to download the aspenONE media.

Download the media that you are entitled to and extract the zip file(s) using a zip extractor such as WinZip/7-Zip. You may choose from the following:

- ***Aspen Engineering*** – includes all Aspen Engineering products, Aspen PIMS and Aspen Administration and Licensing components.
- ***Aspen Manufacturing and Supply Chain*** – includes all Aspen Manufacturing products, Aspen Petroleum Supply Chain products, aspenONE Supply Chain Management products, GDOT, and aspenONE Infrastructure products as well as Aspen Administration and Licensing components.
- ***aspenONE Asset Performance Management*** – includes all APM products.
- ***aspenONE Software License Manager*** includes all Aspen Administration components (Aspen SLM, Aspen SLM tools, and ALC Auto Upload Tool).

Note: The product Release Notes and Installation Guides are included in the Documentation sub-folders under each family of products. There is a link to the Getting Started Guide on the Install Browser.

Licensing

To manage your product entitlement, you will receive one of the following separately:

- A license file if you are using the SLM Server to manage the products to which you are entitled.
- Aspen License Deployment Assistant (ALDA): ALDA is a utility that will update a license server with the necessary licenses needed for a new release without having to send a new license key for applicable suites and

qualified customers. For qualified customers, ALDA is available on the electronic software download site.

- A pre-configured dongle containing your customer license file if you are operating using a dongle to manage the products to which you are entitled.

Note: An invoice noting the products for which you are licensed is sent separately from the software shipment.

You will have access to one or more of the following:

- **aspenONE Token Media** – Contains the media that supports the aspenONE Licensing Model token-based system. This all-inclusive token-based licensing model was introduced in July 2009. Under this licensing model, customers are entitled to install and run all of AspenTech's products as long as they have purchased sufficient tokens. To install software purchased under this commercial agreement, use this media. Software installed from the aspenONE Token media requires run-time token-based license keys.
- **aspenONE Standard Media** – Contains the media that supports perpetual and pre-aspenONE Licensing Model token-based systems. If you have perpetual license agreements or token-based license agreements by product (pre-July 2009), you should use the media labeled Standard. Software installed from the aspenONE Standard media requires older license keys that have been in use since the aspenONE 2004 release.

SLM License Server

Before you install products, it is recommended that you install and configure the SLM License Server.

When you deploy aspenONE V12 software on client machines, the SLM server should be from the V12 release. When migrating to a new version of aspenONE, the SLM Server should always be upgraded first, followed by the SLM clients. This is done to avoid any potential incompatibility issues. During this transition period, it is possible to have clients at a lower version than the SLM Server.

For more information about licensing, please see *Software License Manager (SLM) Installation and Reference Guide* on the aspenONE media.

Localization

The V12 release media includes all localized products that are available when V12 is released. The Knowledge Base article #000093657 contains a spreadsheet that identifies which products are localized and how to access the localization.

Aspen System Requirements

For the most up-to-date hardware and software requirements that must be met to install AspenTech products, refer to the following website: https://www.aspentech.com/platform-support/

Accessing aspenONE Documentation

There are several ways to access Product Help files and context-sensitive Help (these are available depending on the type of application):

- Clicking the **Help** button.
- Pressing **F1** while in the application.
- Accessing the application's **Help** menu.
- Clicking a Help icon. For example:

Documentation in PDF format can be found in the following ways:

- Installation Guides and Release Notes can be found by clicking the corresponding link on the Welcome page of the aspenONE Installer.
- Logging onto the AspenTech Customer Support site, clicking **Support** in the upper right-hand side and then clicking **Product Documentation**.
- Downloading all the available documentation (other than Help files) from the AspenTech Customer Support website via the zip file of the aspenONE Documentation.

For Aspen Plus, Aspen HYSYS, Aspen Exchanger Design and Rating, Aspen Economic Evaluation, Aspen DMC3 Builder, and Aspen Fidelis Reliability only, you can access additional documents by:

- Clicking the Aspen Knowledge icon on the Resources ribbon. (All products except Economic Evaluation.)
- Entering a search string within the Search Aspen Knowledge search box – available in the upper-right corner of the application. (All products except Economic Evaluation.)
- Clicking Aspen Knowledge from the Help menu (Economic Evaluation only).

For Aspen Plus and Aspen HYSYS only, you can use Aspen Knowledge In-Context to access relevant Aspen Knowledge material, including literature, training, eLearning content, Knowledge Base articles, content from the HTFS Research Network, and videos. The  icon indicates that Aspen Knowledge In-Context recommendations are available for the current form.

AES V12 Installation Groups and Options

The Aspen Engineering Suite is divided into functional application families, as shown below. The default installation options for the Aspen Engineering Suite are shown in the shaded areas. These are usually installed together, since they frequently access each other as part of the Aspen Activated Analysis functions from program to program. The unshaded cells represent additional options. The installer **Custom Install** feature lets you select or clear options as desired:

Aspen Multi-Case is automatically installed when Aspen HYSYS, Aspen Plus, or both products are selected as part of the V12 standard installation.

Option	Software Installed	
Process Modeling (Aspen Plus)	Aspen Process Modeling (Aspen Plus) consists of the following: Aspen Plus including options and extensions Aspen Custom Modeler Aspen Adsorption Aspen Chromatography Aspen Multi-Case	Aspen Energy Analyzer Aspen Utilities Planner Aspen Properties Aspen Batch Process Developer Aspen Version Comparison Assistant Aspen Operator Training Aspen Knowledge In-Context
Process Modeling (Aspen HYSYS)	The following licensable products are installed with the Process Modeling (HYSYS) option: Aspen HYSYS Aspen HYSYS Dynamics Aspen HYSYS Dynamics Runtime Aspen HYSYS Upstream Aspen HYSYS Upstream Dynamics	Aspen HYSYS Petroleum Refining Aspen Multi-Case Aspen Flare System Analyzer Aspen Operator Training Aspen Version Comparison Assistant Aspen Energy Analyzer Aspen Knowledge In-Context
	Note: Aspen OnLine is required to use the Plant Data feature in HYSYS and/or Aspen Plus. If you do not select it during the installation, it will still be installed; however, you must configure it later if you want to use the Plant Data feature. **Aspen Basic Engineering Client** and either **ABE Local Server** or **ABE Enterprise Server** are selected for installation by default with HYSYS. ABE is required to use the Activated Datasheets feature. The Datasheets feature replaces Documentation Builder in the Safety Analysis. It is selected for installation by default.	
Aspen Exchanger Designer and Rating	Aspen Air Cooled Exchanger Aspen Fired Heater Aspen Plate Exchanger Aspen Plate Fin Exchanger Aspen Properties	Aspen Coil-Wound Exchanger Aspen Shell & Tube Exchanger Aspen Shell & Tube Mechanical Aspen Version Comparison Assistant Aspen Simulation Workbook

Option	Software Installed	
Aspen Economic Evaluation	Process Economic Analyzer In-Plant Cost Estimator Capital Cost Estimator	Icarus Evaluation Engine Icarus Reporter
Aspen PIMS	Aspen PIMS consists of the following: Aspen PIMS Aspen Report Writer Aspen Olefins Regression Calculator	**Note:** Install Planning Analysis Tools to be able to open Matrix Analyzer, Matrix Comparison Tool, XLR Viewer, PIMS™ Viewer, and Trancol Viewer files.
Aspen OnLine (Plant Data)	Aspen OnLine - Server Aspen OnLine - Client	
Aspen Basic Engineering	ABE Client Installation has two options: Aspen Basic Engineering End User Tools Aspen Basic Engineering Configuration Tools	**Note**: ABE Configuration Tools option will install both the end-user tools and Configuration tools. ABE Server Installation options appear under Server Tools.
Server Products and Tools	Aspen Basic Engineering Server "Enterprise" Aspen Basic Engineering Server "Local" Client Aspen Remote Simulation Services Aspen Properties Enterprise Database Aspen Knowledge In-Context Service	The ABE network-accessible server. ABE server meant to be used by a single (local) ABE desktop installation and via the HTML interfaces.

Product-Specific Requirements and Dependencies

Some Aspen products have specific pre-installation requirements that must be installed to support Aspen products. The following section list the additional requirements.

Products	Additional Requirements
Aspen Plus Aspen Properties	**Intel FORTRAN 2017 Professional Edition (or higher).** Required for customer development of Fortran models. Linker may be: **Microsoft Visual Studio 2015 or 2017.** If Visual Studio 2015 is used, you must choose the custom installation option and check Visual C++ under programming languages to install all the features required. **Aspen OnLine** is required to use the Plant Data feature. If you do not select it during the installation, it will still be

Products	Additional Requirements
	installed, but you must configure it later if you want to use the Plant Data feature. To retrieve data from a historian in Plant Data, you must install the **Aspen Cim-IO & Process Data** granular download. Aspen Basic Engineering is required to use the Datasheets feature in the Safety Environment. **Aspen Basic Engineering** is required to use the Activated Datasheets feature. The Datasheets feature replaces Documentation Builder in the Safety Analysis. It is selected for installation by default. **FactSage 5.1 or later** Used to generate ChemSage files for the ChemApp interface; need not be on the same computer with Aspen Plus. **ChemApp 5.3.2 or later** Required to use FACT/ChemApp interface for pyrometallurgical processes.
Aspen Basic Engineering	**Microsoft SQL Local DB** For ABE, Microsoft SQL Local DB can be used. Local DB is automatically installed on Client Operating systems (for example, Windows 10). On a server operating system (Windows 2008), this is not automatically installed, so you must use either an SQL or an Oracle DB. A local DB is not a prerequisite for the ABE Server install. MS Excel is required to support the datasheet "Export to Excel" feature for both Local and Enterprise ABE server types. For a Local Server (Personal User) install, the ABE Client must always be installed.
Aspen Batch Process Developer	**Microsoft Project 2010 or 2013.** Required to view Project charts in Aspen Batch Process Developer **Visio Professional 2010 or 2013**. Required to view Block and Equipment diagrams in Aspen Batch Process Developer **Note:** You must use 32-bit Microsoft Visio.
Aspen Custom Modeler Aspen Adsorption, Aspen Chromatography Aspen Plus Dynamics	**Microsoft Visual Studio 2017 Professional or Enterprise Edition.** Required in Aspen Custom Modeler to develop C/C++ procedures or to export standalone reaction models for use in Aspen Plus. **Intel Parallel Studio XE 2017**. Required for customer development of Fortran procedures. For models that must be compiled, only Visual Studio 2017 and Intel Parallel Studio XE 2017, 64-bit are supported.
Aspen Economic Evaluation	Primavera P6 Professional R15.2 or R18.8, P6 Professional Integration API R15.2 or R18.8, and Java Development Kit (OpenJDK works with R18.8 as well). • JDK1.8.0_60 for R15.2 • OpenJDK-8.0.222.10 (jdk8u222-b10) or jdk-8u181 (64-bit) for R18.8.

Products	Additional Requirements
	Required for scheduling component of Aspen Icarus Project Scheduler (IPS) and Aspen In-Plant Cost Estimator (AICE). P6 Professional R15.2 or R18.8, P6 Professional Integration API R15.2 or 18.8, and Java components must be installed and configured prior to successful operation of IPS and AICE. For further information, see related Primavera installation documents and the Aspen Capital Cost Estimator and Aspen In-Plant Cost Estimator User Guides, which provide an installation/configuration checklist. **Note**: Primavera P6 Enterprise Project Portfolio Management R15.2 or R18.8 and Primavera P6 Integration API R15.2 or R18.8 are not supported. **Microsoft SQL Server 2014 or higher** (Professional or Enterprise is recommended) is required for using ACCE Insights, which is an integration between Aspen Capital Cost Estimator and Aspen Enterprise Insights. A remote SQL server must be configured before deploying ACCE Insights. For further information on deploying ACCE Insights, see the *Aspen Capital Cost Estimator User Guide*, which provides configuration and deployment details. Also, see the *Aspen Enterprise Insights Stack Installation Guide* for details on installing an on-prem AEI stack, which is another requirement for using ACCE Insights.
Aspen HYSYS	**Aspen OnLine** is required to use the Plant Data feature. If you do not select it during the installation, it will still be installed, but you must configure it later if you want to use the Plant Data feature. To retrieve data from a historian in Plant Data, you must install **Aspen Cim-IO & Process Data**. Aspen Basic Engineering is required to use the Datasheets feature in the Safety Environment. **Aspen Basic Engineering** is required to use the Activated Datasheets feature. The Datasheets feature replaces Documentation Builder in the Safety Analysis. It is selected for installation by default.
Aspen HYSYS Upstream	**Prosper GAP** Required for HYSYS Upstream to run the GAP unit operation. **PIPESIM 2010 or higher** Required for the PIPESIM Link and PIPESIM Net unit operations. **OLGA from Schlumberger** Required to run the HYSYS OLGA link.
Aspen OnLine	**CIM-IO Server** To retrieve data from a historian, you must install the **Aspen Cim-IO** & **Process Data** granular download. **Notes**: CIM-IO client component is installed automatically with Aspen OnLine (standard install). Aspen OnLine is required to use the Plant Data feature in Aspen HYSYS and Aspen Plus. If you do not select Aspen OnLine during the installation, it will still be installed but you will have to configure it later in order to use the Plant Data

Products	Additional Requirements
	feature.

Pre-installation Checklist

Before installing any Aspen Engineering product, review the following checklist before beginning the installation.

To Verify…	Do the following…
System requirements	See "**Aspen System Requirements**" in this guide.
All additional required software has been installed.	See "**AES V12 Installation Groups and Options**" and "**Product-Specific Requirements and Dependencies**" in this guide.
Service Pack Version	Use the **System Properties** window to verify the installed version of Windows and any service pack information
Virtual Memory	Verify that the virtual memory, including swap space is sufficient for running Aspen products. Refer to the Microsoft documentation. The recommended amount of virtual memory (physical memory plus swap file) is 1 Gigabyte. Large plant models or multiple open applications may require additional virtual memory.
Account Privileges	Refer to the Microsoft documentation. The account installing Aspen products must have Local Administrator privileges
SLM is installed	See Software License Manager (SLM) Installation and Reference Guide.

Installing Aspen Products on User PCs

If you want to install Aspen products on a user PCs in a client-server network configuration, you must do the following:

- On each user PC, install the Aspen products.
- Configure the user PCs to use the remote server.
- Before you can run Aspen simulation/calculation software installed on the server machine, you must specify the name of the server the first time you run the product from the user PC.

Product-Specific Installation Notes

Some Aspen Engineering products require product-specific installation tasks. The following sections provide notes about these tasks for the following products:

- Aspen Basic Engineering
- Aspen Economic Evaluation
- Aspen Multi-Case
- Aspen HYSYS
- Aspen HYSYS Dynamics Runtime
- Aspen Plus
- Aspen OLI Interface
- OLI Engine for Aspen Plus
- Aspen Knowledge In-Context Service
- Aspen Simulation Workbook
- Aspen Utilities Planner

You should review the notes for each of the products you are installing to make sure that whatever unique requirements are met. If a prerequisite program is not installed, the Aspen installation will stop, and you will be prompted to install it before resuming.

Aspen Basic Engineering

Installing Aspen Basic Engineering involves choices on administration tools, clients in desktop application and/or in simulators, and database server configurations for network ("Enterprise") or one-user-only ("Local") data use.

You have two options for the ABE Client Installation:

- **Aspen Basic Engineering End User Tools** installs only the non-administrative end-user tools, such as the Explorer, Excel Datasheet Editor and Drawing Editor and others.
- **Aspen Basic Engineering Configuration Tools** installs both the end-user tools and Configuration tools, such as the Administration tool, Class View Editor, Datasheet Definer, and Graphics Definer.

You have two options for ABE Server Installation:

- Aspen Basic Engineering **Enterprise Server** installs the regular ABE Server to be used on a server machine. This installation allows access to the server from another machine through the "desktop" clients or the ABE clients through Aspen Plus/Aspen HYSYS.

Note: The installer checks whether the install machine has a server Operating System. If not, your only option is to install the Local server.

During the installation, if you install the **Aspen Basic Engineering Server (either Local or Enterprise)**, the **Aspen Basic Engineering Server Configuration** screen will appear. On this screen, enter user and password values to configure the Broker Service Account.

Additionally, if you chose to install the **Aspen Basic Engineering** Enterprise **Server**, the **aspenONE Service Configuration** screen will appear, showing

the logged-on user's username. Enter a password and confirm the password for the logged-on user in the boxes provided.

Note: To install the **ABE Local Server** on a server operating system or the **Enterprise Server** on a client Operating system, use the custom install. This will provide all the server options.

Aspen Basic Engineering Install Notes and Issues:

- For a **Local install**, the ABE Client must always be installed.
- For **Coexistence installation**, before V12 is installed you will need to uninstall the Rabbit MQ Server and Erlang OTP R15B01 (5.9.1) **in this order** from the Control Panel.
- An error is generated if you have used the Custom Install to install the ABE end-user tools only, without the configuration tools, and you try to create a Sub Project from the Explorer. The typical install automatically installs the ABE configuration tools. If you are performing a custom install, ensure that you select Configuration tools as well as end-user tools.
- If you are reinstalling the ABE server using a new system password, the old server password will persist after the new install. You must manually reconfigure the **Aspen Zyqad [xxx] Server** to use the new password:

  In the **Control Panel** > **Administrative Tools** > **Component Services** dialog box, click **Computers** > **My Computer** > **DCom Config**. Select **Aspen Zyqad [xxx] Server** and right-click **Properties**. Click the **Identity** tab. Enter the updated password in the user name field. Click **OK**.
- Excel and the ABE Excel Datasheet Editor add-in must be installed on the client machine and launched at least once before you launch the ABE Excel Datasheet Editor from the Activated Datasheet Editor.
- NetBIOS computer names may not be more than 15 characters. Characters over 15 are truncated. When this happens, the ZyqadAdministrator group is not recognized because the ABE Broker is trying to reference the full computer name as established in the Broker.ini file.

  To solve this problem, open the Broker.ini file (**...\Dataservices\x64bin**) and change the **AdministratorGroup** name from **localhost\ZyqadAdministrators** to **<computer name shortened to 15 characters>\ZyqadAdministrators**, and then restart the broker.
- Users are recommended to install **ABE Enterprise server** with a service account that has a **password that does not change**.

Note: The ABE local server installs a process called **OwinHost**.

Aspen Economic Evaluation

The following are required components of Aspen Icarus Project Scheduler (IPS) and Aspen In-Plant Cost Estimator (AICE) and must be installed and configured before successful operation of IPS and AICE:

- Primavera P6 Professional R15.2 or R18.8
- P6 Professional Integration API R15.2 or 18.8
- Java Development Kit (JDK1.8.0_60) for R15.2
- OpenJDK-8.0.222.10 (jdk8u222-b10) or Java Development Kit (jdk-8u181) (64-bit) for R18.8

For further information, see the related Primavera installation documents and the Aspen Capital Cost Estimator and Aspen In-Plant Cost Estimator User Guides, which provide an installation/configuration checklist.

Note: Primavera P6 Enterprise Project Portfolio Management R15.2 or R18.8 and Primavera P6 Integration API R15.2 or R18.8 are not supported.

Microsoft SQL Server 2014 or higher (Professional or Enterprise is recommended) is required for using ACCE Insights, which is an integration between Aspen Capital Cost Estimator and Aspen Enterprise Insights. A remote SQL server must be configured before deploying ACCE Insights. For further information on deploying ACCE Insights, see the *Aspen Capital Cost Estimator User Guide*, which provides configuration and deployment details. Also, see the *Aspen Enterprise Insights Stack Installation Guide* for details on installing an on-prem AEI stack, which is another requirement for using ACCE Insights.

Aspen Multi-Case

Aspen Multi-Case is automatically installed when Aspen HYSYS, Aspen Plus, or both products are selected as part of the V12 standard installation. V12 HYSYS and/or Aspen Plus is required in order to use Aspen Multi-Case.

Supported Web Browsers

You must use one of the following web browsers for Aspen Multi-Case

- Google Chrome
- Microsoft Edge (Version 79 or higher)

Aspen HYSYS

Installing the OLI Engine

This software is necessary to use the OLI electrolytes in Aspen HYSYS. The OLI Engine is not distributed by AspenTech. Contact OLI Systems to get the software and a license for it. Once installed and configured, HYSYS automatically detects its presence and the OLI Electrolytes feature within HYSYS is enabled.

The OLI HardLock Security Key

You must have an OLI HardLock security key and serial number to enable OLI's license manager. Existing customers automatically get the OLI HardLock security key and serial number as part of the continued licensing of the software from OLI. If you do not have the key or serial number, contact OLI Systems (973-539-4996).

This section provides summary information about installing a HardLock Security Key. For details, refer to the HardLock documentation.

To install the HardLock security key

Attach the key to the parallel port located on the back of your computer.

- If you have the USB version of the HardLock key, attach it to any available USB connection.
- If you have a parallel port version of the HardLock key, and you have a printer connected to the parallel port, unplug your printer. Connect the key, and then reconnect your printer to the HardLock key. The HardLock key does not interfere with your printer.

Note: If you have a parallel port security key for another software product, please make sure that the OLI HardLock key is connected directly to the parallel port and is first in the chain of keys.

The OLI Engine in Aspen HYSYS

The OLI Engine uses InstallShield to lead you through a typical Windows installation process. This installation is available in two formats:

- A self-extracting executable file named **OLI Engine in Aspen HYSYS .exe** that is distributed on the OLI Systems website.
- A product distribution DVD from OLI Systems.

The OLI Engine in Aspen HYSYS.exe installs the OLI engine files to **C:\Program Files\OLI Systems\OLI Engine 9.6\Aspen HYSYS\OLI Engine**

To install OLI Engine, you can download this .exe from the OLI Systems website or access it on the OLI DVD and follow the instructions in the OLI Engine documentation.

Results of Installation

The OLI interface files are installed in the following directory:

C:\Program Files\OLI Systems\OLI Engine 9.6\Aspen HYSYS\OLI Engine

The following files should be present:

- OLIHYSYS.dll
- OLIRegClient.dll
- OLIRegclient.rci

HardLock Device Driver Installation Script

After the files are copied and the program group is populated, the HardLock device driver installation script starts. This is a very brief installation, and you are not prompted for any information. Refer to the HardLock documentation for details.

Activated Datasheets / Safety Analysis: Installing the Aspen Basic Engineering Server

The Datasheets feature lets you use Aspen Basic Engineering (ABE) Datasheets to prepare documentation of the design basis for any PSVs, rupture disks, and storage tanks.

In order for this feature to work properly, during the installation process, you must install both the ABE client and server. You must select the following check boxes:

- Select the **Aspen Basic Engineering** check box, as well as the **Aspen Basic Engineering End-User Tools** and **Aspen Basic Engineering Configuration Tools** check boxes below it. This is the ABE client.

  -and-

- To install the ABE server. Under **Server Products and Tools**, select the **Aspen Basic Engineering Server** check box and one of the following check boxes:
  - **ABE Local Server**: Select this option to work with a local server. When you are working with a local server, you create personal workspaces. Each workspace allows you to organize data (for example, all relief systems data). You can create multiple workspaces. This is the recommended option when a simultaneous multi-user environment is not required. The database is stored directly on the machine of each user, and information can be shared by passing simulation files and workspace files from one user to another.
  - **ABE Enterprise Server**: Select this option to work with an Enterprise server. When you are working with an Enterprise server, multiple users can work concurrently in a shared workspace. The ABE Administrator controls your access to workspaces. This is the preferred option for process engineering teams that want to keep the data from a group of users in sync at all times. The simultaneous multi-user server environment requires a trained ABE expert to configure the environments and user roles.

Notes:

- While the Enterprise server can be located on a remote machine, we recommend installing the ABE client and the Enterprise server on the same machine.
- For a typical install, the ABE End-user and configuration tools are selected by default. The ABE local server is selected by default when installing on a client operating system, and you must select the ABE Enterprise when installing on a server operating system, as this option is not selected by default.

Plant Data Feature: Setting Up Data Import Via ADSA and Process Data

In the Aspen HYSYS Plant Data feature, there are two ways of getting imported data into the model. One is by importing data from MS Excel; the other is by importing data from a data historian, such as IP.21. To import from a data historian, the machine must have Process Data and ADSA

installed and configured. The following are instructions on installing Process Data and ADSA in order to be able to import data from a data historian. Please note that it is not required if the data is to be imported from MS Excel.

- Verify that process data and ADSA have not already been installed. The easiest way to do this is as follows:

For Operating System Windows 7 and Windows Server 2008 R2 and earlier, ADSA Client Config Tool should be accessed from **Start** | **All Programs** | **AspenTech** | **Aspen Configuration** | **ADSA Client Config Tool**.

For Operating Systems later than Windows 7 and Windows Server 2008 R2, click the **Windows** button or move the mouse to the bottom left corner to invoke the start screen. Search for ADSA Client Config Tool

- If the **ADSA Client Config Tool** exists, no further action is required. For more in-depth verification, please refer to the following section of the *Aspen InfoPlus.21 Product Family Installation* guide section: **Verifying the ADSA Installation**.
- If **ADSA Client Config Tool** does not exist, then ADSA is most likely not installed. Before installing however, you must verify that no other MSC products are installed. This is to avoid version conflicts since MSC does not coexist with different versions. We recommend contacting your IT department for this.
- If no MES products are installed on the machine, any version of Process Data and ADSA can be installed. On the other hand, if MES products are installed on the machine, the Process Data and ADSA installed must match the version of the installed MES products.
- If you already have MSC products installed refer to the table below and follow the installation steps in the Aspen InfoPlus.21 installation manuals.
- To configure ADSA, refer to the corresponding version's Aspen InfoPlus.21 Product Family Configuration guide chapter on **Configuring Data Sources**.

Product Name	Manual	Installation	Version
Desktop apps	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing the InfoPlus.21 Family of Products	V8.0
Desktop apps	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing for the First Time	V8.4, V8.5
Aspen Desktop Applications	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing for the First Time	V8.7, V8.8, V9.0, V10, V11, V12

Aspen HYSYS Dynamics Runtime

To install Aspen HYSYS Dynamics Runtime, you must install another Aspen Engineering product: **Process Modeling (HYSYS)**.

Aspen Plus

Installing Aspen Plus Without Installing an SQL Server

If you want to install Aspen Plus without installing an SQL server, create the following registry entry and then use the standard install for Aspen Plus:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\AspenTech\Setup]
"NOSQLExpress"=dword:00000001
```

Note: The Enterprise databases are installed on **C:\ProgramData\AspenTech\APED V12.0** (or **D:\ProgramData\AspenTech\APED V12.0)**. This location cannot be compressed, or the databases will not be installed. SQL server does not support databases on compressed drives.

Installing Aspen Properties Enterprise Database Using a Password with Special Characters

The Aspen installation uses the account **apeduser2** to install the Aspen Properties databases within SQL Server; normally, this is configured during installation. However, the MSI installer cannot handle input of certain special characters in this password. If you require a different password:

1. Install one of the recommended SQL Servers and set the password for the SQL Server **apeduser2** account.
2. Set the environment variable **AspenDBPWD** to this password.
3. Use the standard installation to install the AspenTech products.

You can clear the environment variable after the installation completes.

Installing APED Databases Directly Using LocalHost for the SQL Instance

On Windows Server machines it is possible to install APED (Aspen Properties Enterprise Database) databases directly as part of the installation using LocalHost as the SQL Instance. Using LocalHost instead of the machine name will create a self-contained VM image. To do this:

1. Before installation, create the pre-set registry key named **ASPENDB**, and set its value to 5.

The installation will automatically restore APED databases using LocalHost for the selected SQL instance.

Activated Datasheets / Safety Analysis: Installing the Aspen Basic Engineering Server

Since Aspen Plus V11, the Documentation Builder in the Safety Analysis environment is no longer available. Instead, it is replaced with the Datasheets feature, which lets you use Aspen Basic Engineering (ABE) Datasheets to

prepare documentation of the design basis for any PSVs, rupture disks, and storage tanks.

In order for this feature to work properly, during the installation process, you must install both the ABE client and server. You must select the following check boxes:

- Select the **Aspen Basic Engineering** check box, as well as the **Aspen Basic Engineering End-User Tools** and **Aspen Basic Engineering Configuration Tools** check boxes below it. This is the ABE client.

  -and-

- To install the ABE server. Under **Server Products and Tools**, select the **Aspen Basic Engineering Server** check box and one of the following check boxes:
  - **ABE Local Server**: Select this option to work with a local server. When you are working with a local server, you create personal workspaces. Each workspace allows you to organize data (for example, all relief systems data). You can create multiple workspaces. This is the recommended option when a simultaneous multi-user environment is not required. The database is stored directly on the machine of each user, and information can be shared by passing simulation files and workspace files from one user to another.
  - **ABE Enterprise Server**: Select this option to work with an Enterprise server. When you are working with an Enterprise server, multiple users can work concurrently in a shared workspace. The ABE Administrator controls your access to workspaces. This is the preferred option for process engineering teams that want to keep the data from a group of users in sync at all times. The simultaneous multi-user server environment requires a trained ABE expert to configure the environments and user roles.

Notes:

- While the Enterprise server can be located on a remote machine, we recommend installing the ABE client and the Enterprise server on the same machine.
- For a typical install, the ABE End-user and configuration tools are selected by default. The ABE local server is selected by default when installing on a client operating system, and you must select the ABE Enterprise when installing on a server operating system, as this option is not selected by default.

Plant Data Feature: Setting Up Data Import Via ADSA and Process Data

In Aspen Plus, there are two ways of getting imported data into the model. One is by importing data from MS Excel, the other is by importing data from a data historian, such as IP.21. To import from a data historian, the machine needs to have Process Data and ADSA installed and configured. The following are instructions on installing Process Data and ADSA in order to be able to import data from a data historian. Please note that it is not required if the data is to be imported from MS Excel.

- Verify that process data and ADSA have not already been installed. The easiest way to do this is as follows:

For Operating System Windows 7 and Windows Server 2008 R2 and earlier, ADSA Client Config Tool should be accessed from **Start** | **All Programs** | **AspenTech** | **Aspen Configuration** | **ADSA Client Config Tool**.

For Operating Systems later than Windows 7 and Windows Server 2008 R2, click the **Windows** button or move the mouse to the bottom left corner to invoke the start screen. Search for ADSA Client Config Tool

- If the **ADSA Client Config Tool** exists, no further action is required. For more in-depth verification, please refer to the following section of the *Aspen InfoPlus.21 Product Family Installation* guide section: **Verifying the ADSA Installation**.
- If **ADSA Client Config Tool** does not exist, then ADSA is most likely not installed. Before installing however, you must verify that no other MSC products are installed. This is to avoid version conflicts since MSC does not coexist with different versions. We recommend contacting your IT department for this.
- If no MES products are installed on the machine, any version of Process Data and ADSA can be installed. On the other hand, if MES products are installed on the machine, the Process Data and ADSA installed must match the version of the installed MES products.
- If you already have MSC products installed refer to the table below and follow the installation steps in the Aspen InfoPlus.21 installation manuals.
- To configure ADSA, refer to the corresponding version's Aspen InfoPlus.21 Product Family Configuration guide chapter on **Configuring Data Sources**.

Product Name	Manual	Installation	Version
Desktop apps	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing the InfoPlus.21 Family of Products	V8.0
Desktop apps	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing for the First Time	V8.4, V8.5
Aspen Desktop Applications	Aspen InfoPlus.21 Product Family (Installation Guide)	Installing for the First Time	V8.7, V8.8, V9.0, V10, V11, V12

The Aspen Plus OLI Interface

The Aspen OLI Interface is a subcomponent of the Aspen Plus and Aspen Properties installations and is installed automatically.

The Aspen OLI Interface consists of two parts:

- Aspen OLI Interface provided by AspenTech. The interface is included with Aspen Plus and Aspen Properties and is provided without additional license.
- OLI Engine in Aspen Plus V12 licensed by OLI Systems.

Existing customers of Aspen OLI are entitled to the OLI license automatically. However, new customers of Aspen OLI must sign a contract with OLI Systems. OLI Systems provides the necessary software license manager, Hardlock security key, serial number, and password required to access the OLI Engine in Aspen Plus.

Note: 32-bit and 64-bit installation of the Aspen OLI Interface is supported in Aspen Plus V12.

Installing Aspen OLI requires the following:

- Contact OLI Systems to obtain the OLI Hardlock security key and serial number for installing the OLI Engine in Aspen Plus as part of the continued licensing of Aspen OLI.
- Download the OLI Engine in Aspen Plus from the OLI support website (http://support.olisystems.com) and install it. This is a self-extracting script that installs the components supplied by OLI in a directory of your choice (or the default location **C:\Program Files (x86)\OLI Systems\OLI Engine\Aspen Plus V12**). During the installation, you are asked to supply the serial number you obtained in step 1.

  Note: The OLI file is no longer delivered by AspenTech and must be obtained directly from the OLI web site. This ensures that you get the most up-to-date version of the OLI software.
- Plug in the OLI Hardlock key into an available USB port on your system. It is recommended that you use the **Security Settings and Test** program accessible from the **OLI Systems** | **OLI Engine in Aspen Plus V12** | **Tools** menu to confirm that the OLI License is operating correctly.

OLI Engine for Aspen Plus

The OLI Engine for Aspen Plus is a collection of utilities that help you prepare Aspen Plus simulation models using OLI aqueous and mixed solvent electrolytes (MSE) physical properties and equilibrium calculations.

OLI HardLock Security Key

You must have an OLI HardLock security key and serial number to enable OLI's license manager. Existing customers automatically get the OLI HardLock security key and serial number as part of the continued licensing of Aspen OLI. If you do not have the key or serial number, contact OLI Systems (973-539-4996).

To install the HardLock security key attach the key to the parallel port on your computer. If you have:

- The USB version of the HardLock key, attach it to any available USB connection.
- A parallel port version of the HardLock key, and you have a printer connected to the parallel port, unplug your printer. Connect the key, and then reconnect your printer to the HardLock key. The HardLock key does not interfere with your printer.

  For detailed installation instructions, refer to the OLI HardLock documentation.

Note: If you have a parallel port security key for another software product, please make sure that the OLI HardLock key is connected directly to the parallel port and is first in the chain of keys.

OLI Engine in Aspen Plus

The OLI Engine uses InstallShield to lead you through a typical Windows installation process. To complete the installation of Aspen OLI, you must install the OLI Engine. This installation is available in two formats:

- A self-extracting executable file named OLI Engine for Aspen Plus.exe that is distributed on the Aspen USB and the OLI Systems website.
- A product distribution DVD from OLI Systems.

For 32-bit installation the OLI Engine in Aspen Plus.exe installs the OLI engine files to:

C:\Program Files (x86)\OLI Systems\OLI Engine\Aspen Plus V12.0\OLI Engine

For 64-bit installation the OLI Engine in Aspen Plus.exe installs the OLI engine files to:

C:\Program Files\OLI Systems\OLI Engine\Aspen Plus V12.0\OLI Engine

OLI Installed Components

OLI Engine for Aspen Plus.exe installs the following components:

- **Chemistry Wizard.** Used to prepare OLI chemistry model files and Aspen Plus .bkp files.
- **Data Locator.** A utility for searching species in the OLI component databanks.
- **Chemistry Generator.** The original utility for creating OLI chemistry model files and the Aspen Plus .bkp files. The Chemistry Wizard has replaced this utility.
- OLI security system for the OLI Property and Equilibrium Calculation Engine.

Installing

To install OLI Engine, you can download this .exe from the OLI Systems website or access it on the OLI DVD and follow the instructions in the OLI Engine documentation.

After the files are copied and the program group is populated, the HardLock device driver installation script starts. This is a very brief installation, and you are not prompted for any information. Click **Next** to complete the installation, and **Finish** to exit when the installation is complete.

Aspen Knowledge In-Context Service

Aspen Knowledge In-Context delivers curated, featured content that is seamlessly integrated within the HYSYS flowsheet and available within most forms. This tool allows you to access relevant Aspen Knowledge material within Aspen HYSYS and Aspen Plus, providing relevant information that reflects your specific flowsheet topology and interactions with the process model. You can access targeted information from our database, including

literature, training, eLearning content, Knowledge Base articles, content from the HTFS Research Network, and videos.

To take advantage of the Aspen Knowledge In-Context functionality in Aspen HYSYS and Aspen Plus, make sure to select the following check boxes on the Product selection screen during installation:

- **Aspen Knowledge In-Context Service Configuration Tool**

  -and-

- Under **Aspen Knowledge In-Context Service Windows Service**, select one of the following check boxes:
  - **Install as a Windows Service**: Aspen Knowledge In-Context is installed as a Windows service. The Windows Service automatically starts using your **LocalSystem** account.

    -or-

  - **Install as an IIS Web Site**: Aspen Knowledge In-Context is installed as an IIS website. You can install the service to the default website or any existing or new web site. For a new website, you must specify a port number.

Note: If performing an automatic or silent installation, a default port will be assigned for the service. You cannot change the port number after the installation has completed.

The **Aspen Knowledge In-Context Server Configuration Tool** is automatically installed with Aspen HYSYS and/or Aspen Plus.

Installing Aspen Knowledge In-Context as an IIS Web Site

When you select the **Install as an IIS Web Site** option, make sure that the following prerequisites have been met:

- On the **Windows Features** view, make sure that the **Internet Information Services** option is selected.
- .Net Core 3.0 must be installed.

.Net Core 3.0 Module for IIS must be installed.

Aspen Simulation Workbook

Aspen Simulation Workbook V12 is compatible with Aspen Plus V1w, Aspen HYSYS V1w, and the various Aspen Modeler V1w products (ACM, Aspen Plus Dynamics, and so on), and 32-bit and 64-bit versions of Microsoft Excel.

Version Coexistence

Any two versions of Aspen Simulation Workbook cannot coexist within the same Excel Application. It is possible to use both versions on the same machine but only one can be enabled within Excel at any given time. The version that is run by default when Excel starts can be selected using the **Aspen Excel Add-in Manager**, which is available from the **Programs | Aspen Engineering Tools** menu. You can switch between different versions of Aspen Simulation Workbook via **Aspen Excel Add-in Manager**. There are

now two Add-in Managers, one for 32-bit Excel and one for 64-bit Excel, the latter with 64-bit in its name. Use the one corresponding to the installed version of Excel.

Disabling Add-in by Default

To disable Aspen Simulation Workbook, uncheck all versions of Aspen Simulation Workbook that appear in the **Aspen Excel Add-in Manager** dialog box.

Aspen Utilities Planner

Aspen Utilities On-Line Optimizer

Aspen Utilities On-Line Optimizer is a solution that consists of Aspen Utilities Planner, Aspen Online, and CIM-IO. The Aspen Utilities Planner and Aspen Online installation, configuration, and verification are outlined in this document. Please refer to the Aspen Manufacturing Suite USB for CIM-IO documentation.

Setting up Microsoft Excel for Aspen Utilities

You must set up the Microsoft Excel interface to Aspen Utilities. To perform this task, you use the Microsoft Excel **COM Add-Ins** dialog box accessed from the **Excel Options** dialog box.

1. From the **Excel Options** dialog box, select Add-in from the navigation pane and select **COM Add-ins** from the **Manage:** list.
2. Click **Go...**. The **COM Add-ins** dialog box appears.
3. Select **Aspen Utilities V12 Addin** and click **OK**.

For specific instructions to perform this task, refer to the Microsoft Excel documentation.

Granular Downloads

aspenONE V12 includes the ability to download some individual products/product families that can be used independently of a full suite. These sub-components are referred to as **granular downloads**. The granular downloads are used to provide smaller downloads in situations where customers only need a specific product/product family. If more than one granular download is needed, it is recommended that the entire suite is downloaded because it may take less time overall as opposed to downloading two or more sub-components.

V12 Engineering (ENG): In the case of the ENG media, users can download the entire suite or one of the items listed under the ENG group:

- Aspen Economic Evaluation
- Aspen Exchanger Design and Rating with Aspen Properties, Aspen Simulation Workbook and Aspen Version Comparison Assistant

- Aspen Simulation Workbook
- Aspen Multi-Case
- Aspen Cim-IO & Process Data*

*The Cim-IO & Process Data software is from the Manufacturing & Supply Chain suite and is useful for customers deploying a 3rd party historian and is included for convenience. Note: The Aspen Cim-IO & Process Data software is not a part of the overall Engineering suite download, and only available as a separate download.

V12 Manufacturing & Supply Chain (MSC): In the case of the MSC media, users can download the entire suite or one of the items listed under the MSC group:

- V12 Batch APC
- Aspen Supply Chain Management
- Aspen Planning, Scheduling and Blending, Supply & Distribution
- Aspen Manufacturing Execution Systems & Advanced Process Control
- Aspen Unified
- V12 Aspen GDOT Online
- V12 Aspen GDOT Offline & Unified GDOT Builder
- Aspen Informatica PowerCenter 10.4
- Aspen Cim-IO & Process Data

V12 Asset Performance Management (APM): In the case of the APM media, there is no downloadable suite. Users can download the products listed below the APM group:

- Aspen Asset Analytics
- Aspen Fidelis
- Aspen ProMV
- Aspen Mtell
- Aspen Mtell for Oil Well Optimization
- Aspen Asset Performance Management Insights
- Aspen Enterprise Insights On-Premise Stack

V12 Aspen Internet of Things (AIoT): In the case of the AIoT media, there is no downloadable suite. Users can download the products listed below the AIoT group:

- Aspen Cloud Connect
- Aspen Edge Connect

Software License Manager (SLM): In the case of the SLM media, the only granular download is ALDA:

- aspenONE License Deployment Assistant (ALDA)

Installing Aspen Engineering Products for the First Time

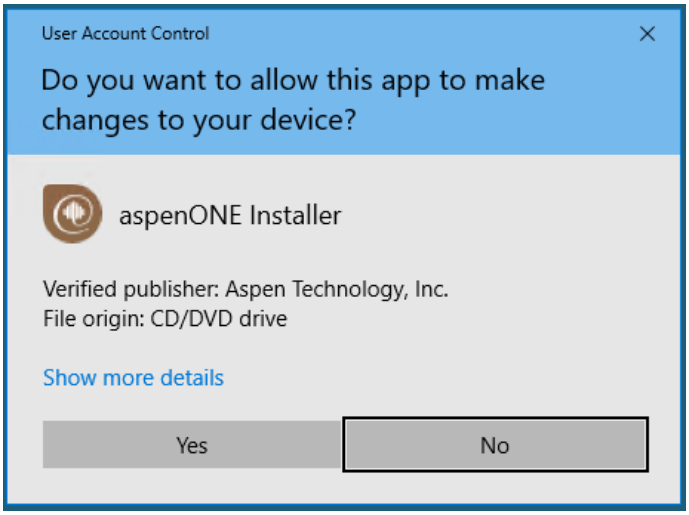
Log on using the account name and password of an account in the **Administrators** group of the target computer.

Note: Before you begin installation, you will want to review the What's New document and Release notes and print copies of the Installation Guides for products that will be installed. Those documents are included under each product suite folder.

Getting Started

1. You can begin your software installation by clicking on the media download or inserting the *aspen*ONE *USB* into the USB drive. The **AutoPlay** dialog box is displayed.
2. Select **Run aspenONE Install Browser**.
3. **User Account Control confirmation**

   Before you see the Welcome page, you may see the following:



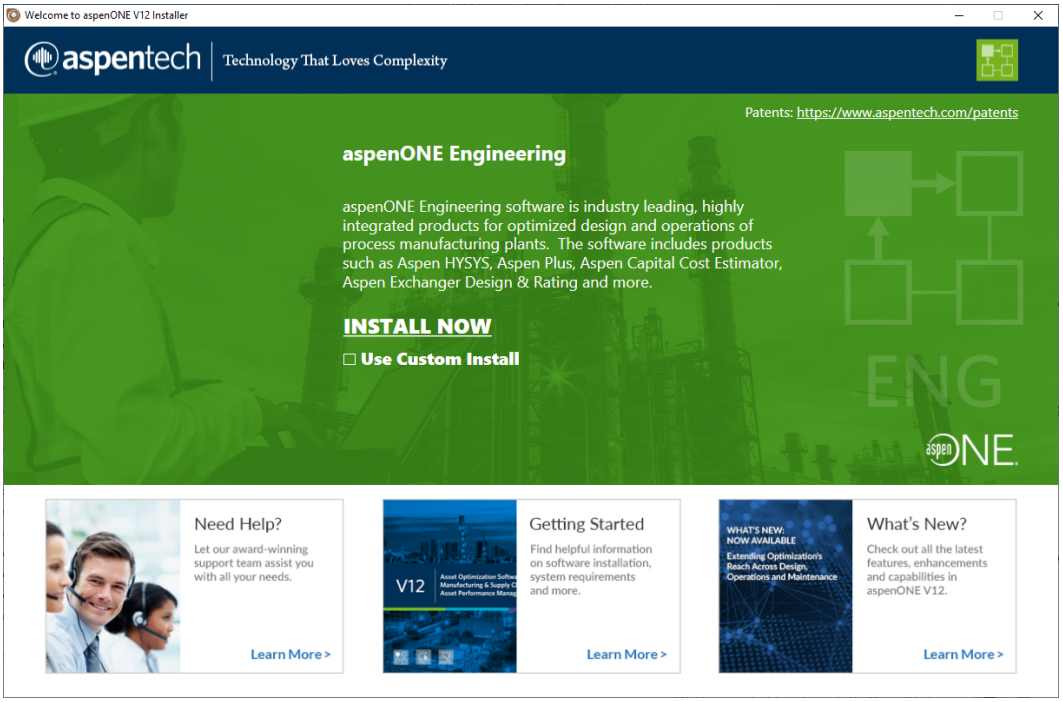
   You must click **Yes** to continue.

   If you do not see this dialog box or something similar, you may have accessed the installation incorrectly and in doing so, appropriate settings may not occur. The consequence is that the applications may not run correctly or errors may appear even though the installation seems to complete successfully. If this dialog box does not appear, cancel the installation and re-launch **setup.exe** to start the installation again.

   Carefully read the instructions, make your selections and proceed with the installation.

   Note: If patches are available for the product that you are installing, a screen may appear that lets you view the patches before you install. You will also have an opportunity to view the updates after you finish the installation process.

The AspenTech Suite selection screen displays. The screen you see varies depending on how you are accessing the Aspen Engineering Suite installation.



The following links are available:

- **Patents** – Allows you to download a document with a list of recent patents.
- **Need Help?** – Connects to the AspenTech Support Web site, where you can find knowledge base articles, tips, and solutions to known problems.
- **Getting Started** – Links to brochure containing information about prerequisites, installing and upgrading the software, documentation and translated versions.
- **What's New?** – Links to a description of new features.

4. Click **INSTALL NOW**.

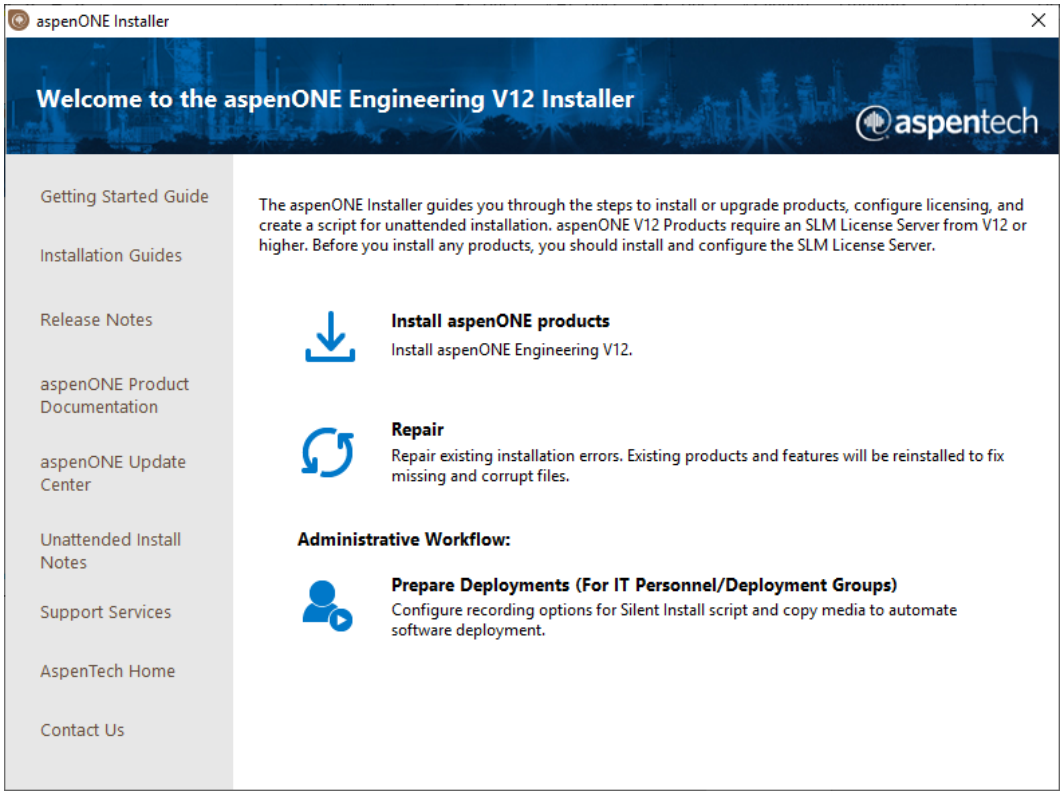
Installation Welcome Page

The **AspenTech Installation Welcome Page** provides options to install or upgrade aspenONE products, configure licensing, and create install scripts for unattended installations.

The following links are available on the left side of the aspenONE Installer Welcome Page:

- **Get Started Guide –** Opens the AspenTech Deployment Solutions Web site.
- **Installation Guides –** Opens a folder that contains all the Installation Guides for the products.

- **Release Notes –** Opens a folder that contains all the Release Notes for the products.
- **aspenONE Product Documentation –** Opens the AspenTech Support Web site.
- **aspenONE Update Center –** Connects to the Aspen Support Update Center so that you can check to see if there are patches available for the product(s) that you are installing. You must be a registered user on the Support Web site to access the Update Center.
- **Unattended Install Notes –** Provides instruction on creating an unattended installation.
- **Support Services –** Connects to the AspenTech Support Web site, where you can find knowledge base articles, tips, and solutions to known problems.
- **AspenTech Home –** Connects to the AspenTech Web site**.**
- **Contact Us –** Connects to the AspenTech Support Web site, where you can obtain the latest e-mail and telephone contact information and find the AspenTech Support location closest to you. You can see hours of operation for global support and submit your support issues.



The following options are available on the aspenONE Installer Welcome Page:

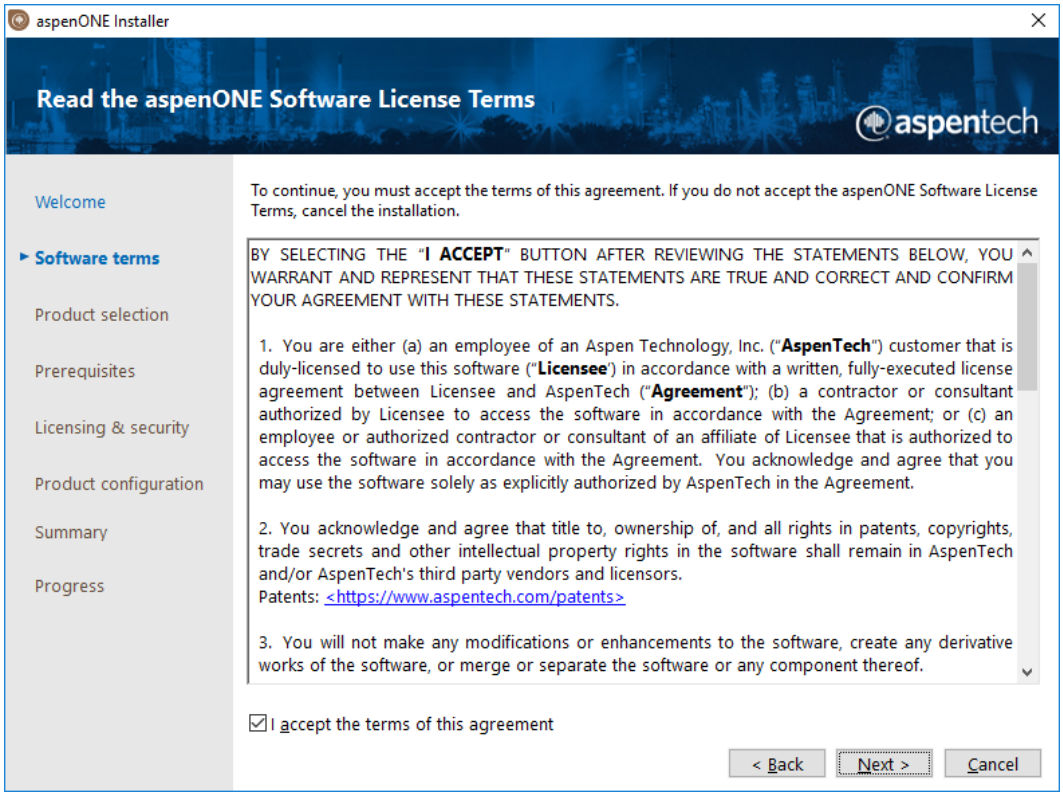
- **Install aspenONE products –** Launches the installation process during which you will select new products to be installed on this computer.
- **Repair –** Repair existing installation errors.
- **Prepare Deployments (For IT Personnel/Deployment Groups) –** Create install scripts and copy media to automate software deployment.

Notes:

- Be sure that the SLM license server or standalone license is available prior to installation. SLM tools are automatically install when installing aspenONE products.

5. Click **Install aspenONE Products**.

License Terms and Conditions

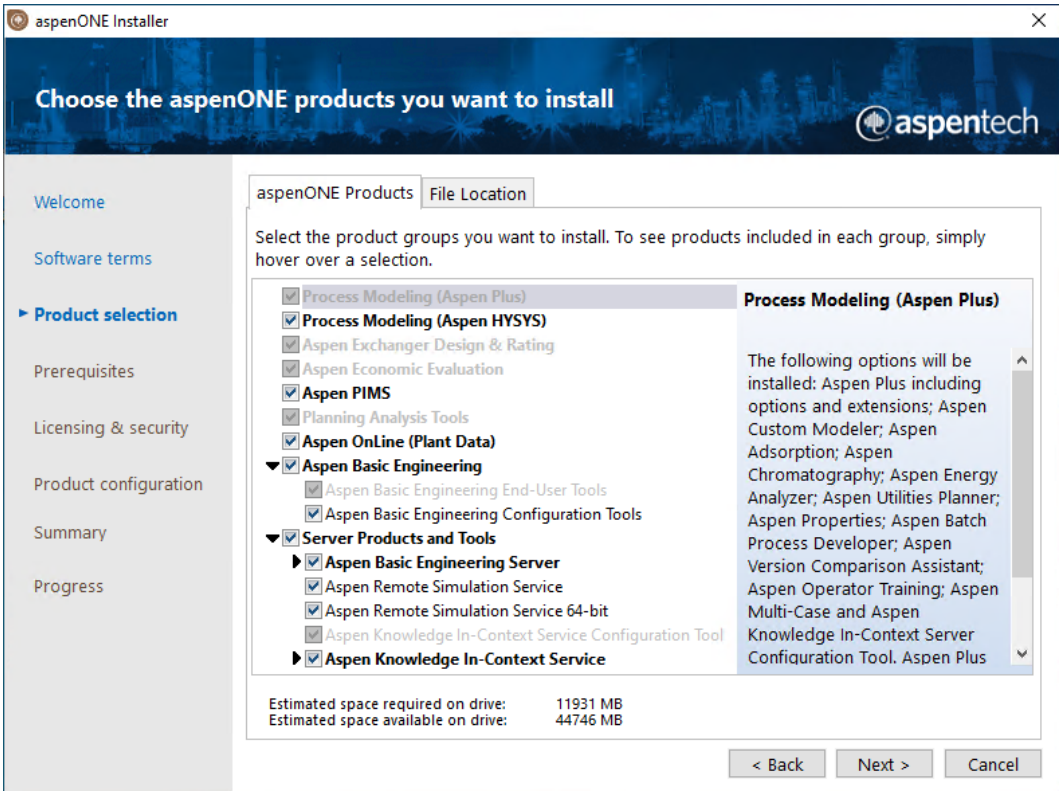


Select **I accept the terms of the agreement** and click **Next** to continue.

Installation Options Sequence

The following section shows the general sequence of input screens you might use during the installation. The screens vary depending on the products you choose to install. You might not see this exact sequence.

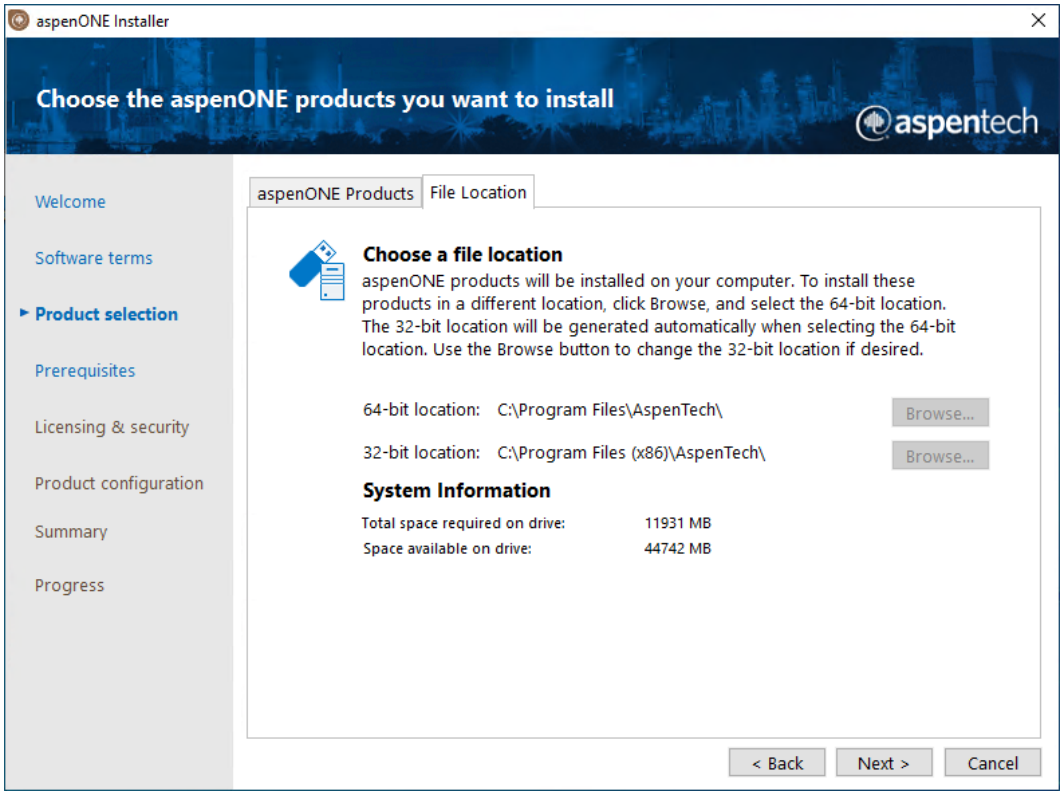
Choose Products



Select the products you want to install. For a new installation, the main products of the suite are selected by default, as shown above.

For more information, refer to "**Product-Specific Installation Notes**" on page 14.

Choose File Location



The default drive for the 64-bit location is **C:\Program Files\AspenTech.**

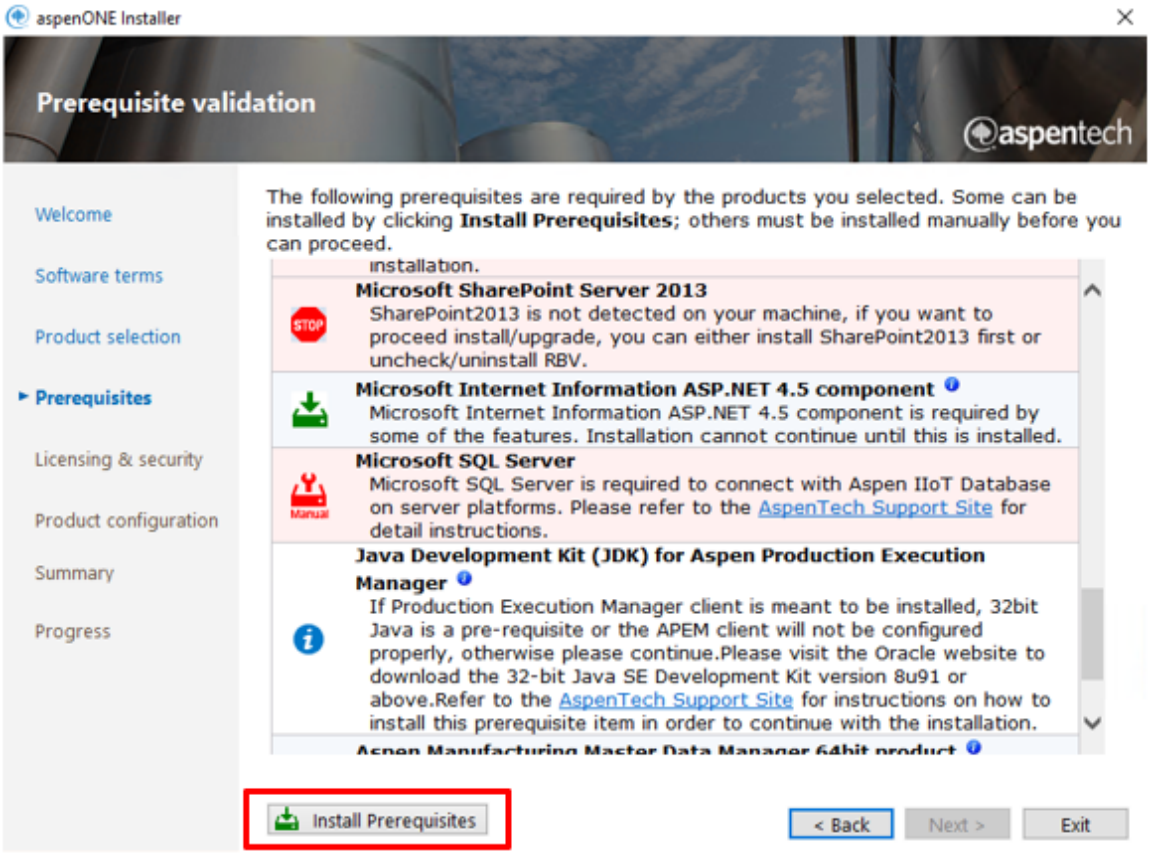
The default drive for the 32-bit location is **C:\Program Files (x86)\AspenTech.**

After installing any Aspen product for the current release on this computer, you cannot change the location of the AspenTech folder.

Note: The Aspen installation does not support installing to directories with non-ASCII characters in the path. Some products may fail if installed to very long paths; the path (including drive letter and backslashes) should not be more than 200 characters long.

After specifying the products to install and the file location, click **Next**.

Prerequisite Validation



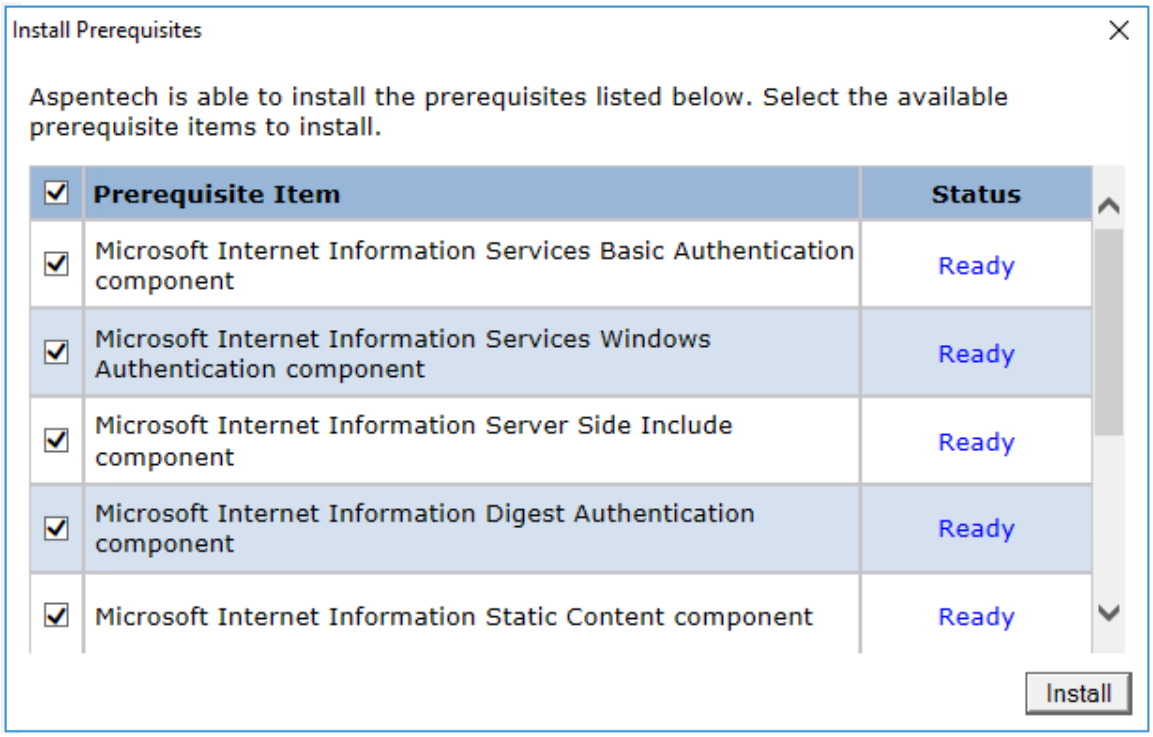
This screen will only appear if prerequisites are missing.

If the prerequisites window appears, you will see the **Install Prerequisites** option at the bottom of the screen. Here is a description of the icons related to installing pre-requisites. (These must be installed before the AspenTech installation can proceed). You may also encounter other icons that are informational only.

- This item can be installed automatically by selecting "**Install Prerequisites**".
- or This item cannot be installed automatically by selecting "**Install Prerequisites**". Select the link in the item's description to open an AspenTech support site link that describes how to install this item.
- This item is informational.

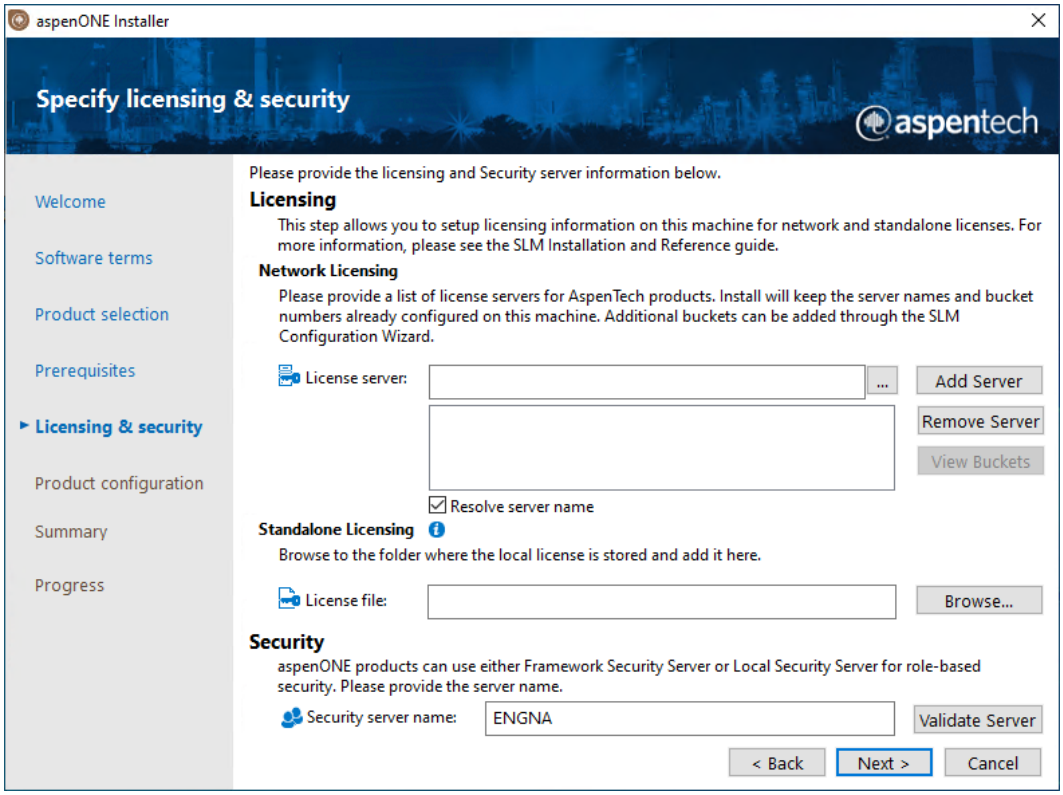
To install the prerequisites:

1. Click **Install Prerequisites** if you want to install or configure the relevant prerequisites.
2. When the **Install Prerequisites** option is selected, the Install Prerequisites screen appears. This will identify which prerequisites can be installed and/or configured.



3. All options will be checked by default - unselect any that you do not want installed automatically and then click **Install**.
   When **Install** is selected, PowerShell windows will appear that perform the install and/or configuration for the specified prerequisites. When the install and/or configuration steps are done, you will see the **Install Prerequisites** window again.
4. Click **x** to close the window and return to the installation process.

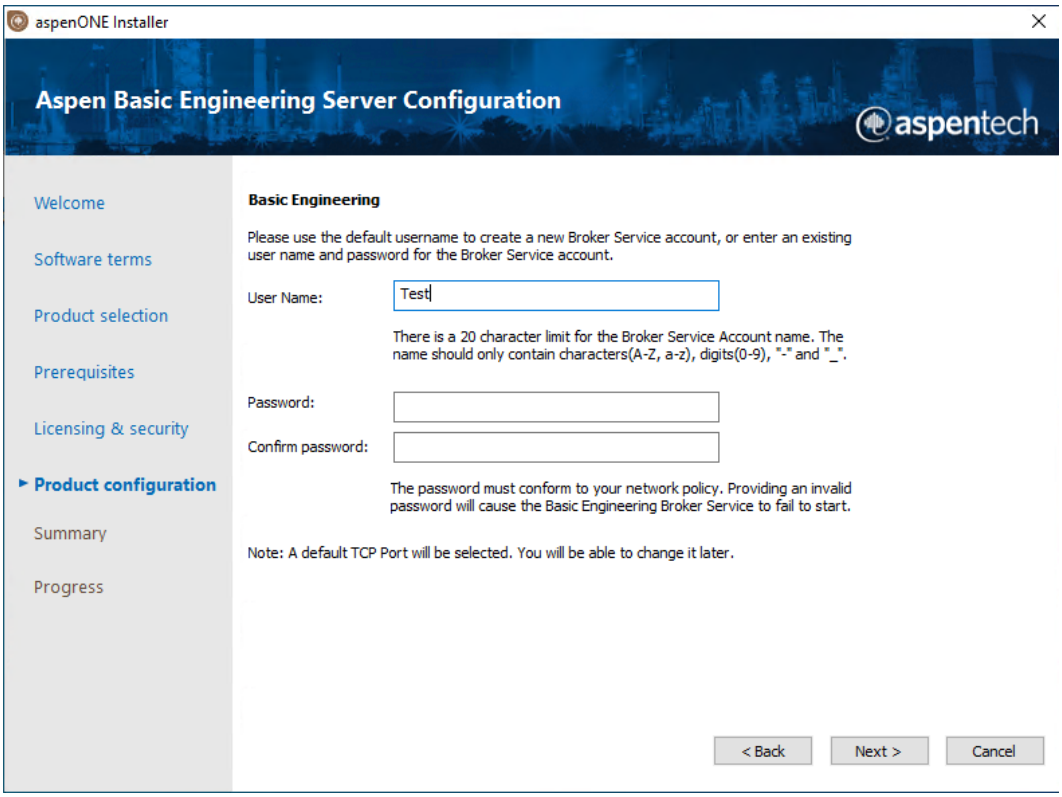
License Security



Add the location of your license server or license file, and the security server name if required. An option is available to specify buckets. If you use buckets, you can specify them during the install or afterward using the SLM Configuration Wizard. Also, when **Resolve server name** is checked, the fully qualified server name is used in the registry. If you use aliases, you can clear this setting. Click **Next**.

Aspen Basic Engineering Server Setup Screens

If you chose to install the **Aspen Basic Engineering Enterprise Server or Local Server,** use this screen to configure an account used to run the Broker.



Only system administrators should perform this type of installation. The installation lets you install workspace libraries and create workspaces on a different drive to the server program files. However, if you install workspace libraries on a different file share, you must copy the .Net KBs to a folder on the same machine as the server program files and point to the KBs using the ManagedKBsDirectory keyword in the Workspace library config file.

In this case, the config files for the workspace libraries will be located on a different file share, and the location of the KBs must not be specified using a UNC pathname. For example, the following is **not** allowed:

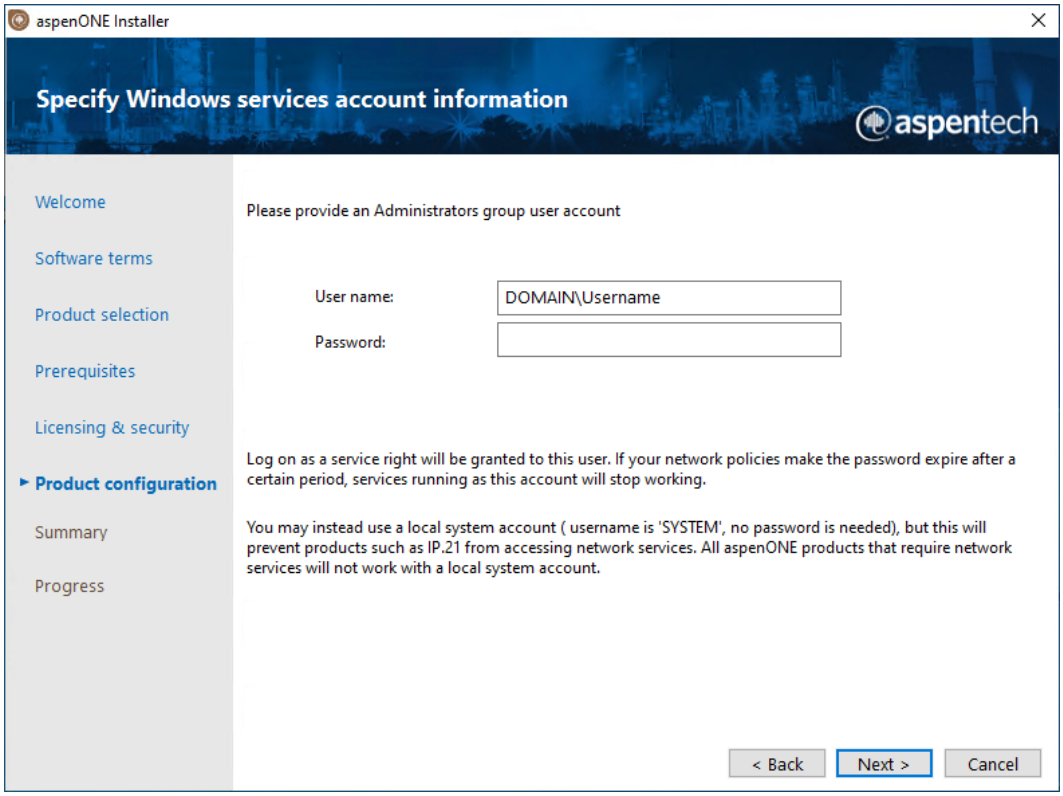
ManagedKBsDirectory= \\ABEserver\test\KB

You must use a pathname directly on the server machine; for example, **ManagedKBsDirectory= C:\ABE\Library\KB**

For...	Do the following...
User Name **Note:** Name is a configured account used to run the Broker.	**Existing User —** Enter an existing (valid) username. **New user —** Enter a (valid) username. The install creates this new username on the local machine. **Important**: This must include a domain name; for example, **MYDOMAIN\AZUSER_YourName.** You must also assign user privileges.
Password	Enter a Password for the account you entered. **Important:** If you enter a password in this field, **please record it for reference,** since you might need it if you uninstall and then install the product again.

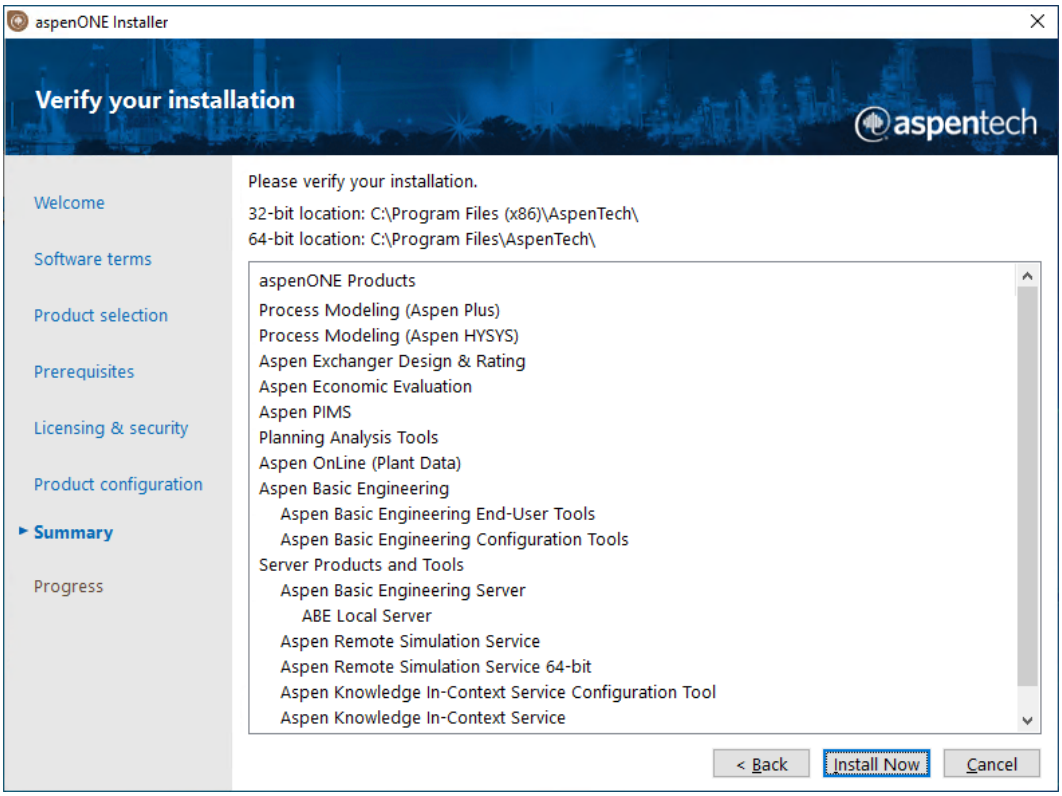
Specify Windows Services Account Information

Enter the domain\username and password for an administrator account. Click **Next**.



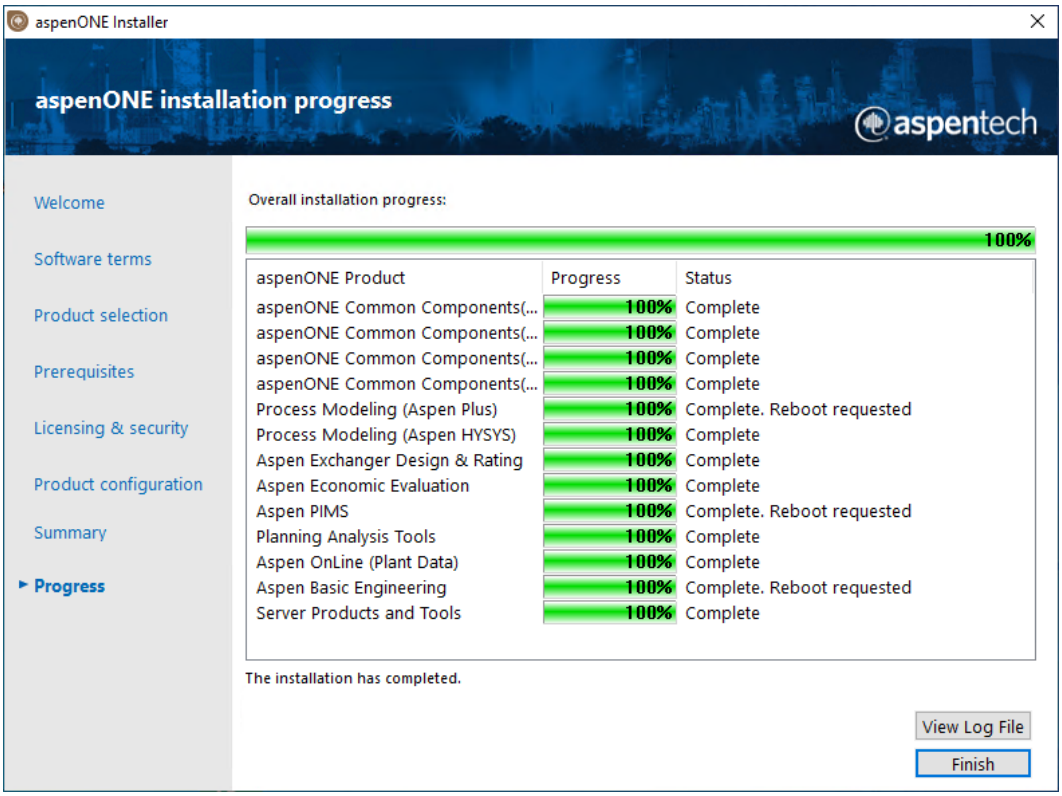
Verify Installation

Check the installation list and click **Install Now** to continue.



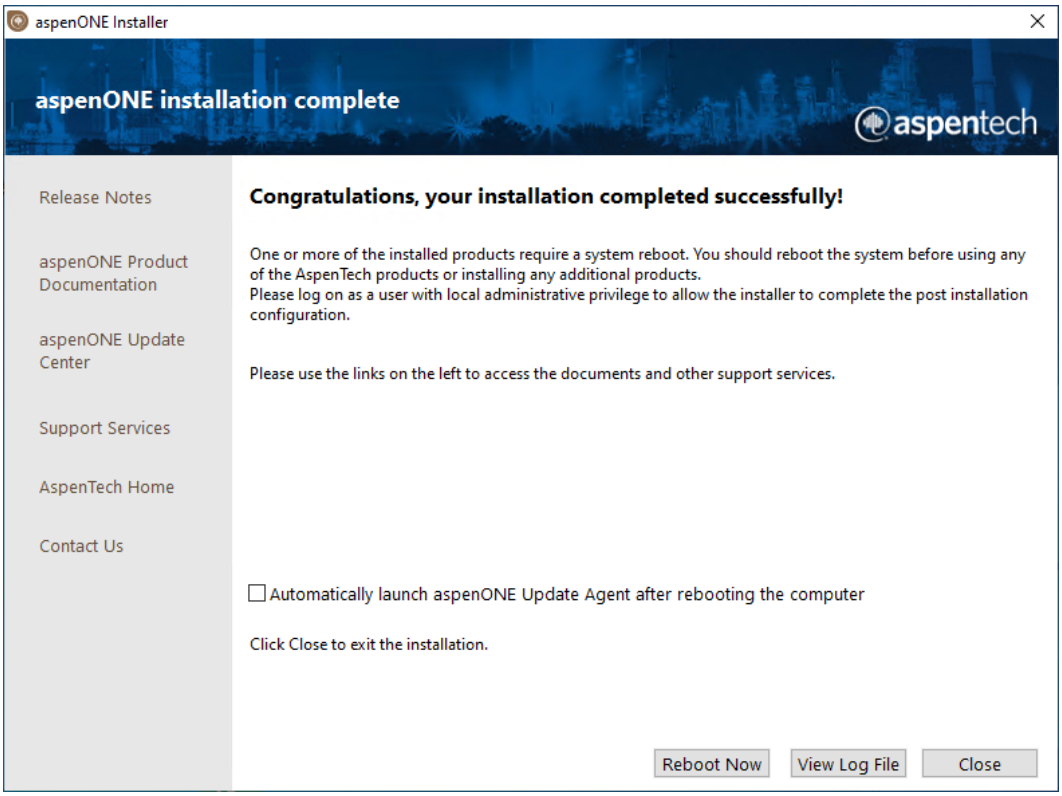
Installation Progress

The installation progress screen will track the install and report any errors. When the installation is complete, click **Finish**.



Reboot

Once the installation is finished, the **Installation Completed** dialog box appears.



You should reboot your system before using any of the products.

2 Configuring Aspen Products and Verifying Installations

Overview

For most Aspen products, to verify that the installation succeeded, you run the product. However, some Aspen products have product-specific verification procedures and configuration requirements that must be performed before the product can run.

Note: If the product does not have a product-specific verification procedure, run the product to verify that it installed correctly.

- Aspen Adsorption
- Aspen Basic Engineering
- Aspen Batch Process Developer
- Aspen Chromatography
- Aspen Custom Modeler
- Aspen Exchanger Design and Rating
- Aspen Multi-Case
- Aspen HYSYS
- Aspen HYSYS Petroleum Refining
- Aspen HYSYS Upstream
- Aspen HYSYS Dynamics
- Aspen Knowledge In-Context Service
- Aspen OnLine
- Aspen Operator Training
- Aspen PIMS (if using Platinum)
- Aspen Plus
- Aspen Plus Distillation Synthesis feature
- Aspen Plus Dynamics
- Aspen Polymers
- Aspen Properties
- Aspen Remote Simulation Service
- Aspen Server Components
- Aspen Solubility Modeler
- Aspen Utilities Planner

Products that Use Aspen Properties Enterprise Database Server

Several Aspen Engineering products use Aspen Properties Enterprise Database Server. The procedure for configuring and verifying an Aspen

Properties Enterprise Database Server installation is the same for each product.

The following table shows the installation options that could result in the need to configure Aspen Properties Enterprise Database Server. Following this table are the specific instructions for configuring and verifying an Aspen Properties Enterprise Database Server installation.

Option
Process Modeling (Aspen Plus)
Aspen Properties
Process Modeling (HYSYS)
Exchanger Design and Rating
Aspen Batch Process Developer

The configuration and verification include performing the following:

- Configuring Microsoft SQL Server or SQL Express
- Enabling Protocols
- Configuring Windows Firewall
- Configuring Products to Use a Remote Database
- Verifying the Aspen Properties Enterprise Database Server Installation

Configuring Microsoft SQL Server or SQL Express

To use the Aspen Properties Enterprise Database with several Aspen Engineering products on a Windows Server operating system, an SQL server is required.

The installer for SQL Express 2014 64-bit is included in the:

```
\3rd Party Redistributables\Microsoft SQL Express 2014 SP2
```

subfolder of the installation USB drive. The 32-bit SQL Express 2014 can also be used, but you must download it from Microsoft.

Note: On Windows 7 and Windows 8 systems, the LocalDB is normally used instead of SQL Server or SQL Express, and no extra installation or configuration is necessary. However, you may still want to install SQL Express 2014 on these systems if you have multiple users using the same computer and you want them to use a single shared database.

Follow these steps to ensure **SQL Server and Windows** authentication mode is enabled.

On the Microsoft SQL Server:

1. Use the **Start** menu to access the Enterprise Manager.
2. Open the **SQL Server Properties (Configure)** dialog box.
3. On the **Security** tab under **Authentication**, select **SQL Server and Windows** and click **OK**.
4. On SQL Server Express, the user interface for configuring the server is not installed by default. If you do not have it, download it from Microsoft: http://www.microsoft.com/downloads/details.aspx?FamilyId=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en and install it before performing these steps:

5. Use the **Start** menu to access SQL Server Management Studio Express.
6. From the **Connect to Server** window, select the server name and Windows Authentication and click **Connect**.
7. From the **Microsoft SQL Server Management Studio Express** window, select the server and navigate to the **Server Properties** dialog box.
8. From the **Server Properties** dialog box, select **Security.** Under **Server authentication**, select **SQL Server and Windows authentication mode**, and click **OK**.

Enable Protocols

If you need to configure SQL Server Express to be remotely accessible, follow this procedure which includes three parts: enabling protocols, configuring Windows Firewall, and setting the services to start automatically.

1. Access the **SQL Server Configuration Manager**
2. Under **SQL Server Configuration Manager (Local) | SQL Server Network Configuration | Protocols for <instance name such as SQLEXPRESS**>, enable the TCP/IP and Named Pipes protocols by right-clicking and selecting **Enable** for each protocol you want to enable.
3. Under **SQL Server Configuration Manager (Local) | SQL Native Client Configuration | Client Protocols**, you must also enable all protocols except for VIA.

   Note: If you wish, you can enable VIA.

Configure Windows Firewall

You must configure Windows Firewall to allow connections between the SQL Server on this computer and remote computers.

On Windows Server 2008:

1. Using the **Control Panel**, open **Windows Firewall** and select **Allow a program or feature through Windows Firewall**.
2. From **Allowed programs and features**, click **Allow another program**.
3. From the **Add a Program** window, click **Browse** and add **sqlservr.exe** to the list of allowed programs.
4. Click **Browse** again and add **sqlbrowser.exe** to the list of allowed programs.

   The location for sqlservr.exe depends on where SQL Server was installed; an example for SQL Server Express 2008 R2 SP2 is:

   C:\Program Files\Microsoft SQL Server\MSSQL10_50.SQLEXPRESS\MSSQL\Binn\sqlserver.exe

   The location for sqlbrowser.exe is:

   C:\Program Files\Microsoft SQL Server\90\Shared\sqlbrowser.exe

On Windows Server 2012:

1. Access the **Windows Firewall with Advanced Security** window and select **Inbound Rules**.

2. Click **New Rule** to open the **New Inbound Rule Wizard**.
3. Click **Program,** and then click **Next**.
4. Click **This program path**, click **Browse**, and locate **sqlservr.exe**. The location depends on where SQL Server was installed; an example for SQL Server Express 2008 R2 SP2 is:

   C:\Program Files\Microsoft SQL Server\MSSQL10_50.SQLEXPRESS\MSSQL\Binn\sqlserver.exe
5. Click **Next** and choose **Allow the connection**. Click **Next** again and check all boxes for **Domain, Private**, and **Public**. Give the rule a unique **Name** (such as **SQL Server 2008**) and click **Finish**.
6. Repeat this task to configure Windows Firewalls for **sqlbrowser.exe**. The path is **C:\Program Files\Microsoft SQL Server\90\Shared\ sqlbrowser.exe**.
7. Repeat this task to configure Windows Firewalls for both **sqlservr.exe** and **sqlbrowser.exe** but click **Outbound Rules** instead of **Inbound Rules**. This will provide two-way access through the firewall for both programs.

Restart the Services and Ensure They are Set to Start Automatically

The changes made above in SQL Server's configuration do not become active until you restart **SQL Server** and **SQL Server Browser**.

To do this:

1. Access **Services.**
2. Ensure the **Startup Type** for both **SQL Server** and **SQL Server Browser** is **Automatic**.
3. Select the **SQL Server** and **SQL Server Browser**, and then click **Restart**.
4. In **SQL Server Configuration Manager**, ensure that both **SQL Server** and **SQL Server Browser** are running.

Configuring Products to Use a Remote Database

Aspen Engineering products which use APED are installed configured to use APED locally. To use a shared APED server instead, do the following:

1. Install the shared server by performing a Server installation and installing the product Aspen Properties Enterprise Database. It is also possible to use the server installed with an Aspen Plus or Aspen Properties installation, as long as that server is not LocalDB.
2. If any custom databases are to be used with this server, install them following the instructions in the *Aspen Properties Database Manager Help*.
3. Configure the server for remote access, as described in the previous section.
4. On each computer where one or more Aspen Engineering products are expected to use this server, configure APED to use the server by running **Database Manager - Aspen Properties V12.**

5. Right-click **Aspen Physical Properties Databases** and select **Register a Database**.
6. Clear **Use LocalDB**.
7. For **Database Type**, select **SQL Server**.
8. For the server name, select the name of the server from the list. If there is a specific instance of SQL Server on this computer you need to connect to, type a backslash (\) and then the instance name after the computer name. SQL Server Express, by default, uses the instance name **SQLEXPRESS**.
9. Select the **Authentication** mode your SQL administrator has selected. For SQL authentication, enter the **User Name** and **Password**.
10. After completing the above fields, the Database Manager will contact the database engine and a list of databases will be available on this list. Select the desired database (holding control to select multiple databases if desired), then click **OK**. To use the default Aspen Plus databases from this server, the **APV120**, **NISTV120**, **FACTV120**, and **APESV120** databases must be registered in this way.

Verifying the Aspen Properties Enterprise Database Installation

Start **Database Tester - Aspen Properties V12.**

When the Database Configuration Tester window appears, click **Start.**

The tester performs several tests and report the results.

- Configuration file permissions: The tester verifies that the configuration file was installed with the correct permissions.
- SQL engine authentication settings: The tester reports all servers that have at least one Aspen Properties database that is registered on this computer. On the **localhost** line, it reports the authentication mode of the local server and whether there is any problem with it. For other servers it cannot check this status, so it only reports what is required.
- Database access settings: The tester attempts to access each registered database and performs three tests.
  - First, it verifies that it can connect to the database at all, with either a **Connection Successful** message or a message indicating the error that occurred.
  - Next, it attempts to read the database as Aspen Plus or Aspen Properties would do. This should report **Granted/Successful** if the database is configured for access from these programs or **Denied/Failed** otherwise. For a non-customized new installation, the databases **APV120**, **NISTV120**, **FACTV120**, and **APESV120** should all be accessible.
  - Finally, it attempts to read the database as the Database Manager would do. This should also report *Granted/Successful* or *Denied/Failed* based on the security options. For a non-customized new installation, the databases **APV120**, **NISTV120**, **FACTV120**, and **APESV120** should all be accessible.

Configuring Language Settings for Localization

If you want to localize for Chinese, Russian, or Japanese, perform the following procedure after installation.

1. If you are using the same language in the operating system as the language you want to use for the aspenONE application, skip this step. If not:
   - In Windows 7, select **Start** | **Control Panel** | **Region and Language** | **Administrative** | **Change System Locale**.
   - In Windows 8.1, select **Start** | **Control Panel** | **Clock, Language and Region** | **Region** | **Administrative** | **Change System Locale**.
   - In Windows 10, select **Start** | **Control Panel** | **Region** | **Administrative** | **Change System Locale**.

   From the drop-down list, select the desired language.
2. To view the applications in the language selected, follow these steps:

   From **Programs** | **AspenTech** | **Process Modeling** | **Select Aspen Language Utility V12**, choose the same language you selected in step 1. The language that you select in this step will be used for all localized aspenONE products installed on your machine. You must restart any aspenONE application after the language selection for the selection to take place.

Aspen Adsorption

This section contains the following:

- Verifying an Aspen Adsorption Installation
- Verifying an Aspen Adsorption Installation that uses Aspen Properties

Note: If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify the installation of Aspen Adsorption on a user PC

1. Start Aspen Adsorption.
2. On the menu bar, click **File | Demonstrations**. The **Demonstration Organizer** window opens.
3. In the top window, click **Nitrogen production (single bed approach)**; then click **Open**. A dialog box appears, indicating where the demonstration will be copied to before automatically opening.
4. Click **OK**.
5. In the top pane of the **Exploring – Simulation** window, click **Flowsheet**.
6. In the lower pane, double-click **Product_Comp**. A plot opens.
7. On the menu bar, click **Run | Run**. After a few moments, the dynamic run completes.
8. On the **Run complete** dialog box, click **OK.** The plot should display a result.

9. On the menu bar, click **Tools | Report | Global Balances**. Additional messages should appear in the Simulation Messages window.
10. On the menu bar click **File | Exit**.
11. When prompted to save changes, click **No**. Aspen Adsorption closes.
12. You have successfully verified your installation. You can delete the test folder.

Verifying an Aspen Adsorption Installation that Uses Aspen Properties

Note: If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify an Aspen Adsorption installation that uses Aspen Properties:

1. Start Aspen Adsorption.
2. On menu bar, click **File | Demonstrations**. The **Demonstration Organizer** window opens.
3. In the top window, click **Nitrogen production (single bed approach); then** click **Open**. A dialog box opens indicating where the demonstration will be copied to before automatically opening.
4. Click **OK**.
5. In the top pane of the **Exploring – Simulation** window, right click **Component Lists;** then, on the shortcut menu, click **Properties**.
6. On the **Physical Properties Configuration** dialog box, verify that the Properties status is Configured using Embedded Aspen Properties.
7. Click **OK** to exit the **Physical Properties Configuration** dialog box.
8. In the top pane of the **Exploring – Simulation** window, click **Component Lists**.
9. In the lower pane, right-click the item labeled **Default**. Click **Convert;** then, in the **Convert** dialog box, click **Yes**. The component list is converted for use with Aspen Properties.
10. Double click the component list Default.
11. In the dialog box that appears, ensure the two components, **Nitrogen** and **Oxygen**, are present in the right-hand list. Then click **Cancel**.

    Note: To reconfigure the flowsheet for use with Aspen Properties, double-click any block on the flowsheet (for example, F1).
12. In the top pane of the **Exploring – Simulation** window, click **flowsheet**.
13. In the lower pane, double-click **Product_Comp**. A plot opens.
14. On the menu bar, click **Run | Run**. After a few moments, the dynamic run completes.
15. On the **Run complete** dialog box, click **OK**. The plot should display a result.
16. On the menu bar, click **Tools | Report | Global Balances**. Additional messages should appear in the simulation message window.
17. On the menu bar click **File | Exit**. When prompted to save changes, click **No**. Aspen Adsorption closes.

You have successfully verified your installation with Aspen Properties. You can delete the test folder.

Aspen Basic Engineering

In general, no additional configuration requirements are required for the Aspen Basic Engineering Client. There are additional installation verification tasks for Aspen Basic Engineering.

Verifying an Aspen Basic Engineering Installation

You should perform the following tasks to verify the installation:

- Verifying an Aspen Basic Engineering Installation.
- Configuring Aspen Basic Engineering after Installation.

This verification procedure has two parts:

- Part One - Verifying Client-Server operation:

  Procedure to check client-server connectivity. This procedure assumes you have a compatible MS SQL or Oracle DB installed on your server host machine and are performing a Server install.
- Part Two - Verifying component installation:

  Necessary to perform basic component installation checks without checking client-server operation.

Firewall Configuration

To access the ABE server remotely from web-enabled or desktop ABE applications, make sure that your firewall allows communication through the following ports and for the following programs:

1. Press **Win**+**R**, or open the **Run** window, then type **wf.msc** and press **Enter**. The **Windows Firewall with Advanced Security** window appears.
2. In the left navigation pane, select **Inbound Rule**. Then, in the right **Actions** pane, click **New Rule**.
3. On the **Rule Type** panel, select **Port**, and then click **Next**.
4. On the **Protocol and Ports** panel, select **TCP**. Select **Specific local ports** and enter **4504, 2231, 82**. Then, click **Next**.

   Note: Port 4504 is for the super socket in web server configuration to listen to messages from the web client. Port 2231 is for the desktop clients. Port 82 is for the host URL selection.
5. On the **Action** panel, select **Allow the connection**, and then click **Next**.
6. On the **Profile** panel, select the appropriate profiles, and then click **Next**.
7. On the **Name** panel, enter a name for the rule, and then click **Finish**. The rule is created and automatically enabled.
8. In the left navigation pane, select **Inbound Rule**. Then, in the right **Actions** pane, click **New Rule**.
9. On the **Rule Type** panel, select **Program**, and then click **Next**.

10. On the **Program** panel, select **This program path**. Click **Browse** and navigate to the **ABEServer.exe** file location. Then, click **Next**.
11. On the **Action** panel, select **Allow the connection**, and then click **Next**.
12. On the **Profile** panel, select the appropriate profiles, and then click **Next**.
13. On the **Name** panel, enter a name for the rule, and then click **Finish**. The rule is created and automatically enabled.
14. Repeat steps 8-13 for **ABEBroker.exe**.

Note: **ABEServer.exe** and **ABEBroker.exe** are both necessary for the Admin Tool to function properly.

Verifying Client-Server Operation

This procedure checks client-server connectivity. Before you begin, exit each component before continuing to the next task.

At this stage, establishing client/server connectivity is sufficient to verify successful installation. It is not necessary to modify existing diagrams or datasheets.

Note: Before starting this procedure, ensure you have a valid username and password (or obtain one from your System Administrator). This allows you to log on to the Workspace(s) you wish to connect to.

Setting User Privileges

1. Log on to your PC with Administrator privileges and start the **Computer Management** control panel.
2. Under **Services**:
   - Check that the **AZ380Broker** service is present and running.
   - If it is not running, check the **Properties/LogOn** settings to ensure the selected account exists and the password is correct.
3. Under **Users and Groups**, ensure that everyone who is going to create workspaces is a member of the Zyqad Administrators group.
4. Run the Aspen Basic Engineering Administration tool and check the local privileges adding additional users and roles as required.

Enter Server URL as a Trusted Site in Internet Explorer

To access the ABE server from a web-enabled ABE application, make sure that your ABE web server URL is entered as a trusted site for Internet Explorer:

1. Open **IE Options**.
2. Select the **Security** tab.
3. Add **http://localhost** (or the IP address) to either Trusted Sites or Intranet sites.

Note: If you add the URL to the intranet zone, you will automatically be logged on. However, if you add it to Trusted Sites, make sure to select the **Automatic Logon with current user name and password** for the Trusted Site security settings.

Connecting to a Workspace

1. Click **Aspen Basic Engineering V12** to display the Aspen Basic Engineering list of installed components.
2. Select Explorer to open the component. The **Open Aspen Basic Engineering workspace** dialog box appears.
3. Select a Workspace to log on to. The name of the selected Workspace should appear in the left pane of the main window.
4. Close the Explorer.

Opening a Diagram

1. Under **Aspen Basic Engineering V12**, **click Drawing Editor** to open the component. The **Open Aspen Basic Engineering workspace** dialog opens.
2. Select a Workspace to log on to.
3. Select **File** | **Open** and select a diagram to open from the list. If none is listed, select **File** | **New** to create a new diagram and open it in the main **Drawing Editor** window.
4. Close the Drawing Editor.

Opening a Datasheet

1. In **Aspen Basic Engineering V12,** click **Excel Datasheet Editor** to open the component or open Excel.
2. Excel appears with the Aspen Datasheet ribbon tab selected. Click the arrow under the Workspace ribbon button to open a workspace.
3. Select a Workspace to log on to.
4. Click the arrow under the **Open Document** ribbon button and select **By Type**. Select from the list displayed. Click **OK**. The selected datasheet is displayed in the **Datasheets** dialog box on the **New** tab.
5. Highlight the datasheet you have selected and click **Open**. This opens the datasheet in the Excel Datasheet Editor main window.
6. Close Excel.

Connecting to a Workspace Through Aspen Plus or HYSYS

Aspen Basic Engineering Enterprise Server

1. Launch either Aspen Plus or HYSYS.
2. Run the simulation in Aspen Plus or make sure the solver is on in HYSYS. Click the **Datasheets** icon on the **Home** ribbon.

3. On the **ABE Host Url Selection** dialog box, select **Join a Project Team**. Specify the address **http://'ServerMachineName'/:82**, and click **Connect**. The **ServerMachineName** is the name of the server to which you are connecting.
4. If the server was installed and setup correctly, the ABE **Mapper** tab will open, and you will be prompted to select a workspace.
5. Select a workspace and connect. The **Mapper** tab will be populated with the flowsheet and workspace objects. If no workspaces exist on the machine, the page will still appear with a warning. A workspace must be created to continue.

Aspen Basic Engineering Local Server

1. Launch either Aspen Plus or HYSYS.
2. Run the simulation in Aspen Plus or make sure the solver is on in HYSYS. Click the **Datasheets** icon on the **Home** ribbon.
3. On the **ABE Host Url Selection** dialog box, select **Use Personal Workspace** and click **Connect**.
4. From the **Datasheets** ribbon tab, click **Select Workspace**. From the **Project Selection dialog** box, select a workspace or create a workspace. Click **Apply**.
5. When connected to the workspace, the **Mapper** tab will be populated with the flowsheet and workspace objects.

Verifying Component Installation

This procedure confirms each installed component opens without error and is available to the user. Exit each component before moving to the next step.

Note: If any component fails to open, or an error message appears, inform your System Administrator.

Logging On

Log on to your PC as a standard user (with no Administrator privileges).

1. Start Aspen Basic Engineering V12 to display the Aspen Basic Engineering list of installed components.
2. Move the cursor over the **Configuration** option to display Configuration components if the **Configuration Tools** installation option was selected.
3. Click the first component to open it and confirm it is available.
4. Repeat this procedure for the remaining Configuration components, ensuring each component launches without error.

You have verified the Aspen Basic Engineering installation.

Configuring Aspen Basic Engineering Client Only

In general, no additional configuration requirements are necessary.

If the Aspen Basic Engineering client is connected to its server via a network of limited bandwidth, and poor performance of the graphics client is observed, we recommend that the flowsheet symbols be replicated to the local machine. Please refer to the *Configuring Aspen Basic Engineering/Administration Tool/Managing Workspaces/Symbol Replication* topics in the *Aspen Basic Engineering Help* for details on symbol replication.

Oracle (or SQL) RDB

Note: Only a correct and corresponding Oracle OLEDB driver/client should be used in conjunction with the Oracle server. See the notes on Oracle versions in Non-Aspen Software to ensure the same/correct driver and RDBMS version of Oracle is available and installed on your machine(s).

For Oracle (or SQL) RDB installations, the Zyqad Administrator must configure the Workspace for RDB access.

For MS SQL LocalDB installations, the Zyqad Administrator does not need to configure the Workspace for RDB access. LocalDB installations are file-based configurations, and the .ldb/mdb template files are copied to create corresponding new workspaces. On a client (such as Windows 7 or Windows 8.1), the installer installs LocalDB.

Please refer to the *Configuring Aspen Basic Engineering /Administration Tool/Managing Workspaces* topics in the *Aspen Basic Engineering Help* or the "Managing Workspaces" section in the *Aspen Basic Engineering Administrator Reference Guide* for configuration details.

Note: If a server is used by the Drawing Editor client on remote machines, the default symbol path will not work.

Aspen Batch Process Developer

This section contains the instructions for verifying and configuring the Aspen Batch Process Developer installation. These include:

- Configuring a Microsoft SQL Server or SQL Express.
- Verify the Aspen Properties Enterprise Database.

To configure a Microsoft SQL Server and verify the Aspen Properties Enterprise Database, see "**Products that Use Aspen Properties Enterprise Database Server**" on page 43.

Aspen Chromatography

Note: If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify an Aspen Chromatography Installation:

1. Start Aspen Chromatography. (Click **Close** on the **Property Organizer** dialog box.)
2. On the menu bar, click **File** | **Demonstrations**. The **Demonstration Organizer** window opens.

3. In the top window, select **Separation of D- and L- Threonine enantiomers** and click **Open**.
4. A dialog box appears, indicating where the demonstration will be copied to before automatically opening.
5. Click **OK**.
6. In the top pane of the **Exploring – Simulation** window, click flowsheet.
7. In the lower pane, double-click **Axial- Concentration**. A plot opens.
8. On the menu bar click **Run** | **Run**. After a few moments the dynamic run completes.
9. On the Run complete dialog box, click **OK**. The plot should display a result.
10. On the menu bar, click **Tools** | **Report** | **Chromatography Report**. A chromatography report dialog box appears.
11. On the menu bar, click **File** | **Exit**. When prompted to save changes, click **No**. Aspen Chromatography closes.

You have now successfully verified your installation. You can delete the test folder created earlier.

Note: If a server is used by the Drawing Editor client on remote machines, the default symbol path will not work.

Aspen Custom Modeler

This section contains the instructions for verifying the installation of Aspen Custom Modeler on user PCs.

Note: If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify an installation of Aspen Custom Modeler on a user PC:

1. Create an empty test folder and copy the **FiveTank.acmf** file into it. The default location of this file is:

   C:\Program Files\AspenTech\Aspen Custom Modeler V12.0\Examples\5Tank
2. Start Aspen Custom Modeler.
3. On the menu bar, click **File** | **Open**.
4. Navigate to your test folder and click the **Fivetank.acmf** file; then click Open to load the simulation.
5. On the menu bar, click **Run** | **Mode** | **Dynamic**.
6. On the menu bar, click **Run** | **Run**.

   After a few moments the dynamic simulation starts to run.
7. Ensure that the time displayed in the status bar at the bottom of the window is advancing. The time appears after the words Dynamic at.
8. On the menu bar click **File** | **Exit**.
9. When the This will stop the current simulation message appears, click **OK**.

10. When prompted to save changes, click **No**. Aspen Custom Modeler closes.

You have successfully verified your installation. You can delete the test folder.

Verifying an Aspen Custom Modeler Installation with Aspen Properties

To verify an Aspen Custom Modeler installation that uses Aspen:

1. Start Aspen Custom Modeler.
2. Create an empty test folder and copy into it the files from the Absorber folder. The default location of this folder is:

   C:\Program Files\AspenTech\Aspen Custom Modeler V12.0\Examples\Absorber
3. On the menu bar, click **File** | **Open**. Locate your test folder and select the **absorber.acmf** file. Then click **Open**.

   The following messages, followed by some messages about equations and variables, should appear in the **Simulation Messages** window:
   - Generating Aspen Properties aprpdf file.
   - Loaded <path to your test folder>\Absorber.acmf with no errors Preparing simulation for solution Starting new snapshot file.
   - Simulation ready for solution.
4. In the **All Items** pane of the Simulation Explorer, click **Flowsheet** to select it.
5. In the **Contents of Flowsheet** pane, double-click the **FeedDisturbance** task to activate it.
6. In the **Contents of Flowsheet** pane, double-click **TempProfile** to display the temperature profile plot.
7. In the **Contents of Flowsheet** pane, double-click the **InitializeSimulation** script to run it.

   When the script completes, the temperature profile plot displays the result.
8. On the menu bar, click **File** | **Exit**.
9. When prompted to save changes, click **No**. Aspen Custom Modeler closes.

You have successfully verified your installation. You can delete the test folder.

Aspen Exchanger Design and Rating

If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

This verification involves the following:

- Configuring Microsoft SQL Server or SQL Express
- Verifying the Aspen Properties Enterprise Database Installation
- Verifying the installation for Aspen Exchanger Design and Rating products on a user PC.

Configuring Microsoft SQL Server or SQL Express

See "Products that Use Aspen Properties Enterprise Database Server" on page 43 for instructions.

Verifying the Aspen Properties Enterprise Database Installation.

See "Products that Use Aspen Properties Enterprise Database Server" on page 43 for instructions.

Verifying the Installation for Aspen Exchanger Design and Rating Products on a User PC

To verify the installation of any of the Aspen Exchanger Design and Rating design system product on a user PC:

1. Start Aspen Exchanger Design and Rating. The Aspen Exchanger Design and Rating window appears.
2. On the **Resources** Ribbon, click the **Examples** icon. You will see the folders for the various products within Exchanger Design and Rating. Open one of the folders and then any of its files.
3. On the **Home Ribbon**, click the **Run** button.

You are finished with the verification of the Aspen Exchanger Design and Rating installation.

Aspen Multi-Case

After installing Aspen Multi-Case, you must perform the following steps:

1. Verify that the Aspen Multi-Case installation was successful. To access Aspen Multi-Case, from the **Start** menu, click **Aspen Multi-Case** | **Aspen Multi-Case**.

   Aspen Multi-Case is launched using your default web browser.

   Note: Aspen Multi-Case only supports Google Chrome and Microsoft Edge (Version 79 or higher).
2. Launch the **Services** window. Confirm that **MultiCase Server V12.0** and **SimService V12.0** are both running.
3. Configure Aspen Multi-Case.

Aspen Multi-Case Configuration

Aspen Multi-Case allows you to customize the application configuration information in order to support distributed deployment. This enables you to deploy the Aspen Multi-Case application in one computer and deploy the simulation service in another computer. The simulation service can leverage multi-core machines on-premises or in the cloud and run the simulations in parallel.

When you deploy the Aspen Multi-Case application in one computer and deploy the simulation service (SimService) in another computer, you must perform additional configuration steps.

Configuring the Remote Machine

Perform the following steps in the remote machine (*Machine A*) where SimService is installed:

1. Launch the **Windows Defender Firewall with Advanced Security** view.
2. On the **Windows Defender Firewall with Advanced Security** view, click **Inbound Rules**.
3. In the **Actions** pane, click **New Rule**.
4. On the **Rule Type** page of the **New Inbound Rule Wizard**, select the **Port** radio button, and then click **Next**.
5. On the **Protocols and Ports** page:
   - Retain the **TCP** radio button selection.
   - In the **Specific local ports** field, specify the port number used in the **Configuration Service URL.** If you did not modify the **hostConfig.json** file, specify **8120**.
6. Click **Next**.
7. Retain the default selections on the **Action**, and **Profile** pages.
8. On the **Name** page, you can specify the desired name (for example, Multi-Case Port).
9. Click **Finish**.

Configuring the Client Machine

Perform the following steps in the client machine (*Machine B*) where **MultiCase Server V12.0** is installed:

1. Launch Aspen Multi-Case using a supported web browser.
2. Click the **Settings**  icon. The Configuration Customization pane appears.
3. Change the **Configuration Service URL** to **http://*<Full computer name of Machine A>*:*<port number>*/**.
4. Click **OK**.

Configuration Customization Pane

You can use the **Configuration Customization** pane within Aspen Multi-Case to modify configuration settings for the application, including configuring the number of cores to run in parallel. These global settings are applied to all projects.

Note: The Aspen Multi-Case configuration database is automatically created.

To customize Aspen Multi-Case configuration settings:

1. Launch Aspen Multi-Case.

2. Click the **Settings**  icon.

   The **Configuration Customization** pane appears.

3. (Optional) If you want to run SimService in a server, you can modify the **Configuration Service URL**. The default value is http://localhost:8120/

   Specify the URL used by SimService (one of the Aspen Multi-Case services). Use one of the following formats:

   - **http://localhost:*<port number>*/**
   - **http://*<Computer name>*:*<port number>*/**
   - **http*://<Full computer name>*:*<port number>*/***: The full computer name is your computer name with the applicable domain appended. However, if the service is installed on the same machine as the Aspen Multi-Case application, **localhost** can be used.

   If you specify a URL that is incorrect or contains invalid characters, the following message appears: **Invalid Service URL**.

4. In the **Max Number of Parallel Runs** field, specify the maximum number of concurrent parallel runs that will be performed. This setting allows you to take advantage of Aspen Multi-Case's parallelization capabilities to run multiple simulations simultaneously. The default value is 2.

   Note: Do not specify a value that is greater than the number of virtual processors for the computer on which the simulation service is running.

5. Click **OK**.

Note: You can also modify the **Host** and **Port** values in **hostConfig.json**, if desired. This file is available in the **Program Files\AspenTech\Aspen MultiCase V12.0\SimService** folder. You can use **localhost** when SimService is installed on the same machine as the Aspen Multi-Case application.

For Windows Server

If you are using a Windows Server machine, you must either:

- Use a **Local System** account for SimService.

  -or-

- If using a **Local System** account does not work, modify the SimService properties to specify an account that is an administrator for the machine.

To modify the SimService properties:

1. Launch **Services**.
2. On the **Services** window, double-click **SimService**. The **SimService Properties** dialog box appears.
3. Select the **Log On** tab.
4. Select the **This account** radio button. In the associated field, type **.*<Local account>***, where ***<Local account>*** is an administrator for the machine.
5. Click **Apply**, and then click **OK**.

Aspen HYSYS

If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

This section contains the instructions for verifying and configuring the Aspen HYSYS installation. These include:

- Configuring a Microsoft SQL Server or SQL Express.
- Verify the Aspen Properties Enterprise Database.
- Verifying the installation of Aspen HYSYS on a User PC

To configure a Microsoft SQL Server and verify the Aspen Properties Enterprise Database, see "**Products that Use Aspen Properties Enterprise Database Server**" on page 43.

To verify the installation of Aspen HYSYS on a user PC:

1. Launch Aspen HYSYS V12.

   The Aspen HYSYS V12 program window appears.
2. On the **File** menu, click **Open**, and then click **Open Case**.
3. Navigate to the **Samples** folder and open the Aspen HYSYS sample case named **Sweet Gas Refrigeration Plant.**
4. Open MIX-100.
5. Select and then clear the **Ignored** check box.
6. In the message panel, verify that the simulation converges correctly.
7. Close the case.

HYSYS Petroleum Refining

To verify an Aspen HYSYS Petroleum Refining installation:

1. On the **File** menu, click **Open**; then click **Reformer**.
2. Navigate to the **\Template** folder and open **4BedSemiRegenWithStabilizer-Reformer.Cat**.
3. Double-click **Reactor Section**; then select and then clear the **Ignore** check box.
4. In the message panel, verify that the simulation converges.
5. Close the case.
6. On the **File** menu, click **Open**; then click **Hydrocracker**.
7. Navigate to the **\Template** folder and open **Simple.hcr**.
8. Double-click **Reactor Section**; then select and then clear the **Ignore** check box.
9. In the message panel, verify that the simulation converges.
10. Close the case.
11. On the **File** menu, click **Open**; then click **Catcracker**.
12. Navigate to the **\Template** folder and open **one_riser.fcc**.
13. Double-click Reactor Section. Repeat the confirmation process as with the last two examples.

If the models converge, the HYSYS Petroleum Refining installation was successful.

Aspen HYSYS Upstream

To verify the Aspen HYSYS Upstream installation on a user PC:

1. Navigate to the **Samples\AspenHydraulics\Steady State\Single Phase** folder and open **Mixer 1P Steady State.hsc**. Verify that the network in the hydraulics subflowsheet converges.
2. Close the case.
3. Navigate to the **Sample\AspenHydraulics\Dynamics\Single Phase** folder and open **Mixer 1P Dynamics.hsc**.
4. Go to the **Dynamics** ribbon, click the **Integrator** button, and click **Continue** to restart the integrator. Verify that the **integrator** runs without error or warnings (see the bottom left end of the status bar).
5. Close the case.

Aspen Knowledge In-Context Service

The Aspen Knowledge In-Context Server Configuration Tool and the Aspen Knowledge In-Context Service Configuration Tool will need to be configured after installation.

Aspen Knowledge In-Context Server Configuration Tool

The Aspen Knowledge In-Context Server Configuration Tool allows you to set the URL used by Aspen HYSYS and/or Aspen Plus to connect to the content fetching service in order to retrieve data.

To use the Aspen Knowledge In-Context Server Configuration Tool:

1 From the **Start** menu, right-click **AspenTech** | **Aspen Knowledge In-Context Server Configuration tool** and select **Run as Administrator**.

The **Aspen Knowledge In-Context Server Configuration Tool** window appears.

2 In the **Aspen Knowledge In-Context Service Address** field, you can modify the URL for the content fetching service. If the content fetching service for the Aspen Knowledge In-Context Service is installed and running on the same machine, the default address is the service URL. Usually, this value is **http://localhost:9870**.

3 Click **Validate Connection** to ensure that the specified URL is valid.

- **Succeeded** indicates that the URL is valid and the connection works.
- **Failed** indicates that the URL is invalid.

4 Click **OK** to save your changes. You can save the URL even if the validation failed.

Note: Click **Cancel** to close the tool without making any changes.

Aspen Knowledge In-Context Service Configuration Tool

The Aspen Knowledge In-Context Service Configuration Tool allows you to modify the service address and specify how frequently Aspen Knowledge In-Context content will be updated.

To use the Aspen Knowledge In-Context Service Configuration Tool:

1. From the **Start** menu, right-click **AspenTech** | **Aspen Knowledge In-Context Service Configuration tool** and select **Run as Administrator**.

   The **Aspen Knowledge In-Context Service Configuration Tool** window appears.

2. The **Aspen Knowledge In-Context Service Address** field displays the default service address.

   If the content fetching service is installed on a server and the Aspen Knowledge In-Context Service Configuration Tool is installed on a client machine, you can modify the service address to update the content fetching service remotely. To update the Aspen Knowledge In-Context Service address, click **Change**. The **Change Aspen Knowledge In-Context Service Address** dialog box appears.

   - You can specify a new service address in the **New Address** field, and then click **OK** to save your change.
   - To return to the default service address, click **Load from Registry**.

   The default service address on a local machine is **http://localhost:9870**.

3. You can view information in the following fields:
   - **Last Update Time**: Displays the last time that content was updated.
   - **Planned Next Update Time**: Displays the next time that content is scheduled to update.
   - **Current Update Interval (days)**: Displays how frequently content is updated. The default value is 30 days.

4. If desired, you can either:
   - Click **Update Now** to force the content fetching service to immediately update content.

     -or-

   - Specify a value in the **New Update Interval (days)** field, and then click **Save**.

Click **Close**.

Aspen OnLine

When the installation of Aspen OnLine is complete, you must:

- Verify the Aspen OnLine installation.
- (If you use Aspen RTO Watch to connect to the Aspen OnLine installation server) Create a new (firewall) inbound rule to allow communication.

Note: Aspen OnLine no longer installs the server and client separately. However, you can use the Aspen OnLine installation as a server and access it remotely through another Aspen OnLine installation. There is no separate configuration for Aspen OnLine Server and Aspen OnLine Client.

Configuring CIM-IO for the Aspen OnLine Server

The CIM-IO component for Aspen OnLine must be configured to communicate with the source of plant data.

Note: If another AspenTech application on this computer is using CIM-IO to communicate with the same devices, Aspen OnLine will use the same CIM-IO connection, and you do not need to perform this configuration.

The following instructions assume the plant data server is IP.21. For complete CIM-IO configuration instructions for IP.21 and for all other plant data server devices, see the CIM-IO manual.

Setting up CIM-IO

To set up a CIM-IO connection, do the following:

1. Open Aspen OnLine.
2. Click **File | Configure CIM-IO.**
3. Enter the necessary information in the dialog box and click **OK**.

Adding Services

To add services to the Windows server computer:

1. In Windows Notepad (or other text editor), open the services file. The default location is:

   ```
   C:\winnt\system32\drivers\etc\services
   ```

2. Insert the following two lines so that all services are in numerical order.

   If necessary, replace 5801 and 5802 with unused service numbers greater than 1023 that are identical to those in the corresponding file in the IP.21 server computer.

   ```
   CIMIOSETCIM_200  5801/tcp  #CIMIO for IP.21
   CIMIOSETCIMH_200  5802/tcp  #CIMIO for IP.21 historical
   ```

3. Save the file and exit the text editor.

Specifying Logical Devices

To specify the Logical Devices used by CIM-IO in its logical device definition file:

1. Double-click the **CIM-IO Device Configuration** icon in the CIM-IO windows group. The header line reads:

   ```
   Logical Device Name Node Name DLGP Service Name
   ```

2. Insert the following line as the last line in the file:

   ```
   IOSETCIM200 NodeName CIMIOSETCIM_200 CIMIOSETCIMH_200
   ```

   where:

   NodeName is the server name of the computer where IP.21 resides.

   Note: These instructions assume the plant data server is IP.21. For your specific device or plant data server, see the CIM-IO manual.

3. Double-click the **CIM-IO Device Configuration** icon in the CIM-IO windows group.

   The header line reads:

   `Logical Device Name Node Name DLGP Service Name`

4. Insert the following line as the last line in the file:

   `IOSETCIM200 NodeName CIMIOSETCIM_200 CIMIOSETCIMH_200`

   where:

   NodeName is the server name of the computer where IP.21 resides.

Note: These instructions assume the plant data server is IP.21. For your specific device or plant data server, see the CIM-IO manual.

Verifying an Aspen OnLine Installation

Do the following to verify that Aspen OnLine is installed and functional, verify:

1. Plant data access on the installation machine.
2. Relevant Aspen products on the installation machine.
3. Aspen OnLine properly installed.

Verifying Plant Data Access

To verify plant data access on the server machine, follow the instructions in "The CIM-IO Test Utility" section of the *Aspen OnLine User Guide*.

Verifying Aspen Products

Aspen OnLine can drive Aspen Plus models, Aspen HYSYS steady-state sequential modular, Aspen HYSYS Dynamics, Aspen Exchanger Design and Rating, Aspen Plus Dynamics, and Aspen Model Runner models, and those from Aspen Custom Modeler and related products such as Aspen Utilities.

- If Aspen OnLine V12 is used to drive any of the models mentioned above, verify that V12 of the respective model has been correctly installed on the User machine.

Verifying an Aspen OnLine Installation on the User PC

Make sure that the Aspen OnLine service is running on the User PC. Sometimes, after reboot, the Aspen OnLine service might not start correctly. To correct this, refer to the Aspen OnLine help.

1. Start Aspen OnLine V12. The Aspen OnLine window appears.
2. On the **Resources** tab in the Ribbon, click **Examples**.
3. On the **Browse** dialog box, under the folder **Examples**, select **AOLSample**.
4. Click **Yes** on the dialog box that appears. This copies the project files from the installation folder to the working folder.

Refer to the Aspen On-line help if you do not know the steps to run the project. Otherwise, run the example project and make sure everything is working properly.

Creating a New Inbound Rule to Allow Communication with Aspen RTO Watch

If you use Aspen RTO Watch to connect to the Aspen OnLine installation server, you must create a new (firewall) inbound rule to allow communication.

Perform the following steps:

1. Open the Control Panel, and then open Windows Firewall.
2. On the **Windows Firewall** window, select **Advanced Settings**. The **Windows Firewall with Advanced Security** window appears.
3. In the upper left corner, select **Inbound Rules**. Options for inbound rules appear in the **Actions** pane on the right.
4. Click the **New Rule** option. The **New Inbound Rule Wizard** appears.
5. On the **Rule Type** page, select **Port**, and then click **Next**.
6. On the **Protocol and Ports** page, select **TCP** and **Specific local ports**. Type the port number used for CIMIORTO service. The default is 60016. Click **Next**.
7. On the **Action** page, select **Allow the connection**, and then click **Next**.
8. On the **Profile** page, select all available check boxes, and then click **Next**.
9. On the **Name** page, in the **Name** field, type **CIMIORTO**. In the **Description** field, type **Inbound Rule for CIMIORTO port 60016**.
10. Click **Finish**.

Aspen Operator Training

In general, no additional configuration requirements are required for Aspen Operator Training. However, login information is provided below.

Logging into Aspen Operator Training

After you launch Aspen Operator Training, a login dialog box appears.

To login to Aspen Operator Training:

1. In the **Username** field, specify the user name for your account.
   - For Administrators, the default user name is **ISAdmin**.
   - For Operators, the default user names are **Instructor**, **Operator1**, and **Operator2**.
2. In the **Password** field, specify the password for your account.
   - For Administrators, the default password is **AspenTechAOT**.
   - By default, Operators do not need to specify a password.
3. Click **Login**. Aspen Operator Training appears.

Note: If you login with an account that belongs to the Operator role, you can only access Runtime mode and the Communication and OPC Server interfaces.

Aspen Plus

After installing Aspen Plus, you should perform the following tasks:

- Configure a Microsoft SQL Server or SQL Express and verify the Aspen Properties Enterprise Database installation. See "**Products that Use Aspen Properties Enterprise Database Server**" on page 43 for instructions.
- Verify the Aspen Plus Installation.
- Install the FORTRAN Compiler.
- Use the FORTRAN Compiler with Aspen Plus.
- Troubleshooting Aspen Plus.
- Install Aspen OLI Interface.
- Verify an Aspen OLI Interface Installation.
- Deploy aspenONE search Server URL Configuration.

Verifying the Aspen Plus Installation

To verify the installation of Aspen Plus:

1. Launch **Aspen Plus V12.**
2. On the **Resources** ribbon tab, click **Examples**.
3. On the **Open** dialog box, navigate to **pfdtut.bkp** (within **GUI\Examples\Bulk Chemical**), and then click **Open**. The default location is:

   C:\Program Files\AspenTech\Aspen Plus V12.0\GUI\Examples\Bulk Chemical
4. On the ribbon, click **Home | Run**.

   Simulation diagnostic messages appear in the Control Panel. The installation test should finish with no errors or warnings.

   The following message indicates a successful verification:

   ->Simulation calculations completed
5. On the Control Panel, click **Check Status**.

   The **Results Summary** window appears, showing the run completion status.

Using the FORTRAN Compiler with Aspen Plus

Running an Aspen Plus simulation requires a FORTRAN compiler if the model:

- Requires compiling and linking user FORTRAN subroutines
- Contains non-interpretable inline FORTRAN in the problem definition

Note: Even if you only use Fortran for your Procedure code, you still need the supported release of Visual Studio.

After installing Aspen Plus and the compiler, you need to configure Aspen Plus to use the compiler/linker combination you have installed.

To do so:

1. Start **Set Compiler for V12.**
2. A list of supported compiler choices appears. Next to each choice, **ERROR** appears if this compiler or linker is not detected, or **OK** if it is detected.
3. Type a number and press enter to set the compiler option for the current user.
4. If you are an administrator, a second prompt may appear to set the compiler at the MACHINE level. This will apply to users who have not selected a compiler choice themselves.
5. Aspen Plus displays the resulting settings. Press any key to close the window.

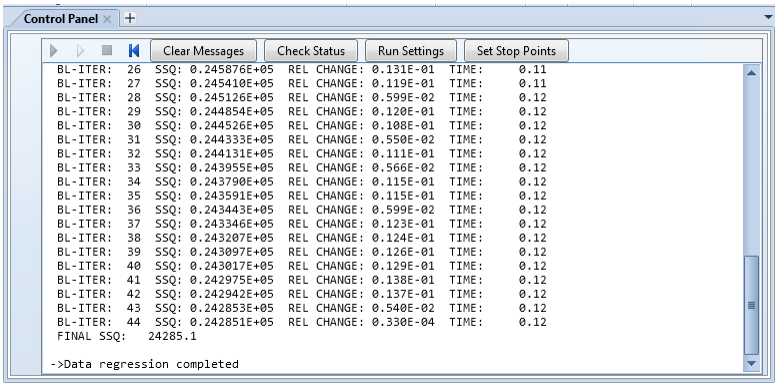
Verifying the Installation of the FORTRAN Compiler

After you install the FORTRAN compiler, you need to verify that it is operating properly. The verification uses example file: **DRSEX14.APWZ**.

To verify the installation of the FORTRAN Compiler:

1. Copy the file **DRSEX14.APWZ,** located in the **\Aspen Plus V12.0\GUI\Examples\How To\Data Regression**, to your working directory.
2. Launch **Aspen Plus V12.**
3. Open the file **DRSEX14.APWZ** from your working directory.
4. On the Aspen Plus menu bar click **View | Control Panel**.
5. On the **Control Panel** toolbar, click the **Run** button.
6. When the **Data Regression Run Selection** screen appears, click **OK** to start the run.

   When the data regression completes, the Control Panel display should appear as follows.



Aspen OLI Interface Installation

This section contains the instructions for verifying the installation of the Aspen OLI Interface on user PCs.

Note: To use Aspen OLI, Aspen Plus must be installed prior to or simultaneously with Aspen OLI. The OLI Engine for Aspen Plus V12, available from OLI, must also be installed.

To verify the installation of Aspen OLI Interface on a user's computer:

1. If you have not already done so, restart Windows to include changes made to your configuration during the installation.
2. Start **Chemistry Generator** (or **Chemistry Wizard**).

The **Chemistry Generator** (or **Chemistry Wizard**) window opens.

You can also verify your installation by checking that files were installed to the desired installation directory.

To verify your installation in this way:

- Open Windows Explorer; then navigate to the destination directory:

Note: If you specified a different destination directory, you must navigate to that location instead.

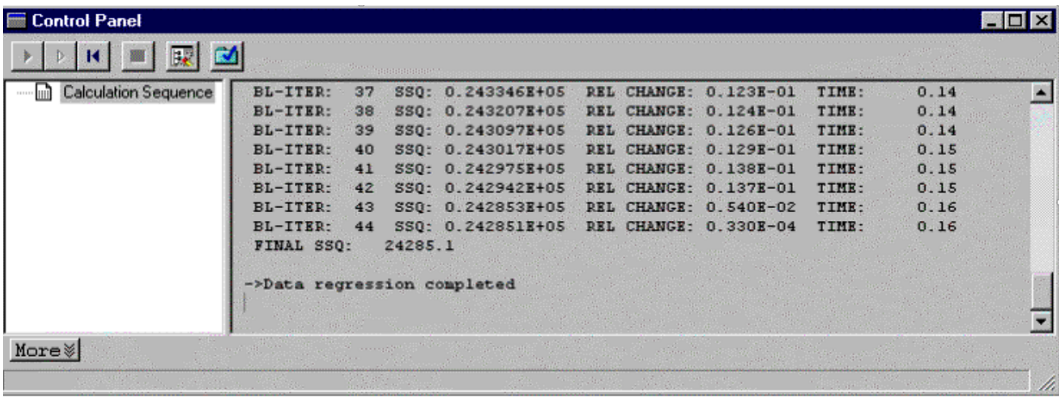
32-bit installation path: **C:\Program Files (x86)\OLI Systems\OLI Engine\Aspen Plus V12**

64-bit installation path: **C:\Program Files\OLI Systems\OLI Engine\Aspen Plus V12**

You should find these subdirectories:

- Chemistry Generator.
- Chemistry Wizard.
- Data Locator.
- Forms.
- OLI Engine.
- User Models.

1. On the Aspen Plus menu bar click **View | Control Panel**.
2. The **Control Panel** window appears.
3. On the **Control Panel** toolbar, click the **Run** button.
4. When the **Data Regression Run Selection** screen appears, click **OK** to start the run.
5. When the data regression completes, the Control Panel display should appear as follows.



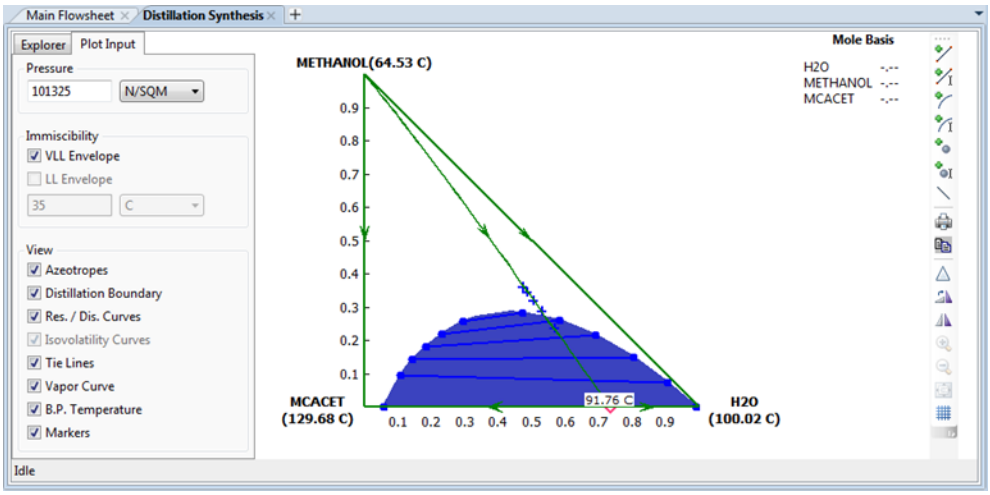
Verifying the Aspen Distillation Synthesis feature of Aspen Plus Installation

Use the following procedures to verify installation of the Aspen Distillation Synthesis feature of Aspen Plus on a user PC.

To verify the installation of the Distillation Synthesis component:

1. Start **Aspen Plus User Interface**.
2. In the **Start Using Aspen Plus** dialog box, click **Open**.
3. In the **Open** dialog box, click the **Aspen Plus V12 Favorites** folder icon. Then open **Examples | Bulk Chemical | Distillation,** click **3phase.bkp; then** click **Open**.
4. If a message appears saying you do not have write access to this folder so Aspen Plus is selecting a new working folder, click OK.
5. On the Aspen Plus ribbon, click **Home | Analysis | Distillation Synthesis** to start the **Distillation Synthesis** component.
6. The **Distillation Synthesis** window appears within the Aspen Plus Window.
7. Under **Components** in the **Distillation Synthesis** window, for **Comp 3** select **MCACET** from the list of components.
8. In the Explorer tree click **Ternary Plot** to start the calculations for generating the ternary map.

   When the calculations are complete the ternary map that is generated should look like this:



You have successfully verified your installation.

Aspen Plus Dynamics

This section contains the instructions for verifying the installation of Aspen Plus Dynamics on user PCs.

To verify an installation of Aspen Plus Dynamics on a user PC

1. Create an empty test folder and copy into it the file **DyEster.bkp**.
2. The default directory location of the file is:

   C:\Program Files\AspenTech\Aspen Plus Dynamics V12.0\Examples
3. Start Aspen Plus V12.
4. Open **DyEster.bkp**, located in your test folder.
5. Use the **Run** Command (F5) to run the simulation.
6. When the run completes, on the menu bar, click **File | Export** | **Aspen Plus Dynamics – Flow Driven**.
7. Navigate to your test folder.
8. Click **Save** to export the dynamic simulation.
9. On the Dynamics ribbon, click **Flow Driven**.
10. Aspen Plus Dynamics starts automatically, with the **DyEster** simulation open.
11. On the menu bar, click **Run | Run**. After a few moments, the dynamic simulation starts to run.
12. Make sure that the time shown in the status bar at the bottom of the window is advancing.
13. The time appears after the words **Dynamic at**.
14. On the menu bar, click **File | Exit**.
15. When the **This will stop the current simulation** message appears, click **OK**.
16. When prompted to save changes, click **No**.

Aspen Plus Dynamics closes.

You have successfully verified your installation. You can delete the test folder.

Aspen Properties

For Aspen Properties, you must perform the following tasks:

- Verify the installation on a user PC.
- Run the Aspen Properties Database Configuration Tester.
- Configuring Excel for Installing Aspen Properties Excel Calculator.
- Configure Excel to perform Property Calculations.

Verifying an Aspen Properties Installation

If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify the installation of Aspen Properties on a user PC:

1. Launch **Aspen Properties Desktop V12.**
2. Under **Start Page**, click **New.** In the **New** dialog, click **Blank Case**, then click **Create**.
3. Select Components – Specifications. The **Components Specifications Selection** sheet appears.
4. Define these components:
   - water
   - ethanol
5. Go to the **Enterprise Database** sheet and verify that the following databanks are listed in the **Selected databanks** column:
   - PURE38
   - AQUEOUS
   - SOLIDS
   - INORGANIC
   - AP-EOS
   - NISTV120 NIST-TRC
6. Click **Next** to display the **Methods-Specifications Global** sheet and specify:
7. **Base method** = NRTL (Top right corner field, select from the list)
8. Click **Next** to display the **Methods/Parameters/Binary Interaction/NRTL-1/Input** sheet.

   Parameters should already be filled in for water and ethanol.
9. Return to the **Components Specifications Selection** sheet, and press **F1** to display Help on Components Selection.
10. Click **Review**.

    The **Pure Component-Review-1** form appears. Parameters such as API, CHARGE, DGFORM, for the components should appear.

You have successfully verified your installation.

Configuring Excel for Installing Aspen Properties Excel Calculator

Before you can install **Aspen Properties Excel Calculator** (Aspen Properties.xla) you must configure **Trust Center Settings** in Excel first. The user installing Aspen Properties Excel Calculator must perform these steps. In addition, each user who intends to use Aspen Properties Excel Calculator must perform these steps. The following provides high-level information about performing these tasks. For details, refer to the Microsoft Excel documentation.

- Close all instances of Excel. Then start Excel. Open a **Blank workbook**.
- Use the **Trust Center Settings** to access the Trust Center window.
- If the AspenTech folder is not already listed, use **Trusted Locations** and **Add new location** to browse to and select the AspenTech folder (typically **C:\Program Files\AspenTech** or **C:\Program Files (x86)\AspenTech**) and check **Subfolders of this location are also trusted**.
- **For Add-ins**, select Require Application Add-ins to be signed by Trusted Publisher.
- For **ActiveX Settings**, select:
  - Enable all controls without restrictions and without prompting (not recommended, since potentially dangerous controls can run)
  - Safe mode (helps limit the control's access to your computer)
- For **Macro Settings,** select the following:
  - Enable all macros (not recommended, since potentially dangerous code can run).
  - Trust access to the VBA project object model.
- **For External Content,** select the following:
  - Enable all Data Connections (not recommended).
  - Enable automatic update for all Workbook Links (not recommended).
- Complete the configuration and close all Excel windows and Excel. Now you can install Aspen Properties Excel Calculator.

Configuring Excel for Performing Property Calculations

Before you can use the Excel Calculator feature to perform property calculations with Aspen Properties from within a Microsoft Excel workbook, you must configure Excel to use an add-in.

For detailed instructions on configuring Excel, see the Aspen Properties online help under **Analysis Tools | Aspen Properties Excel Calculator | Configuring the Excel Add-in**.

The settings described in *Configuring Excel for Installing Aspen Properties Excel Calculator* must be set in order to allow Aspen Properties Excel Calculator to run. In addition, you must do the following to add the **Aspen Properties Excel Calculator** into the Excel environment. The following provides a high-level description of the tasks you must perform. For details refer to the Microsoft documentation.

- Close all instances of Excel. Then start Excel.

- Access the **Add-ins** dialog box.
- Browse to the **\Engine\xeq directory** where the Aspen Properties calculation engine was installed (for example, **C:\Program Files\AspenTech\Aspen Properties V12.0\Engine\xeq),** and select the Aspen Properties.xla file.
- A new menu, **Aspen**, appears on the **Add-Ins** tab of the ribbon and **Aspen Properties** appears under **Aspen**.

  Note: Starting in Excel 2013, the **Add-Ins** tab does not appear at all until you restart Excel.
- Close all Excel windows and restart Excel.

Each user must perform complete this task before using Aspen Properties Excel Calculator, on each computer where he intends to use it.

To verify that the Excel Add-in is set up properly and that the correct version of Aspen Properties is being used:

1. Start Excel.
2. Check that the **Aspen Properties** menu still exists.
3. From the **Aspen Properties** menu, select **About Aspen Properties**.
4. The **About Aspen Properties Excel Calculator** dialog box appears and displays the version of Aspen Properties in use.
5. Click **OK**.

Note: If you are upgrading from a previous version of Aspen Properties, you must reconfigure Excel to use the new version of the add-in before Excel will use the new version of Aspen Properties.

Aspen Properties Database

To configure and verify the Aspen Properties Database, you must:

Configuring a Microsoft SQL Server or SQL Express

See "**Products that Use Aspen Properties Enterprise Database Server**" on page 43.

Aspen Remote Simulation Service

You must perform the following for Remote Simulation Services:

- Configure the Aspen Remote Simulation Service.
- Run the Aspen Remote Simulation Service (ARSS)

Configuring Aspen Remote Simulation Service

The service normally uses port 9011. You might need to change it in certain cases, such as if another program on that computer uses that port, or you need to use a particular port to connect through a firewall. To change the port which the service uses, edit **Program Files\AspenTech\Aspen Remote Simulation Service V12.0\server.config** in Notepad.

Locate the line

```
<channel ref="tcp" port="9011">
```

And change the number to the port you want to use, for example:

```
<channel ref="tcp" port="xxxx">
```

Running Aspen Remote Simulation Service (ARSS)

Aspen Remote Simulation Service™ is a component that provides a remote execution environment for other AspenTech tools including Aspen Simulation Workbook and Aspen Model Deployment. ARSS allows model developers to deploy models onto a server accessible to several client computers.

AspenTech simulation software must be installed on the server, but it is not required on the client computers. This significantly reduces the installation requirements for the client computers.

Note that any remote software interacting with ARSS should have additional specific information necessary for its use; for instance, Aspen Simulation Workbook includes the Aspen Remote Simulation Service Status Monitor and documentation on how to use it.

Tip: It is a best practice to use ARSS on the same computer as the simulation-creating software.

Aspen Server Components

Configuring a Windows Server as an Aspen Host

Note: This does not apply to Aspen Basic Engineering.

After you complete the installation of the Aspen server components on the server machine, you must configure the server as an Aspen host.

For each user connecting to the Windows Server, you must do the following:

You must...	Additional Information
Create Local Groups and User Accounts for the Windows Server	Provide the name and password for each new user. The password should meet your local security policies. Confirm the password. Clear **User must change password at next logon**. Select **Password never expires**. For details, refer to the Microsoft documentation.
Grant **Log on as a Batch Job** access to the server for each user account that connects to the server.	For details, refer to the Microsoft documentation.
Add each user connecting to the Windows Server to one of the	For details, refer to the Microsoft documentation.

following: • A local user account or group on the server. • An account or group in the domain to which the server belongs. • An account or group in a trusted domain.	
Grant access to the server for local users.	For details, refer to the Microsoft documentation.

Aspen Solubility Modeler

Configuring an Aspen Solubility Modeler Installation

To configure Excel to use the Aspen Properties Add-in:

- Follow the procedure in **Configuring Excel for Performing Property Calculations**.

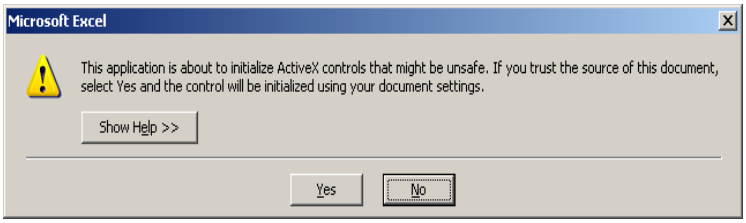
To launch Aspen Solubility Modeler:

1. Start Aspen Solubility Modeler. The **Aspen Solubility Modeler V12** folder opens. The NRTL-SAC folder contains the Microsoft Excel and Aspen Properties files used with Aspen Solubility Modeler.
2. Open either of the Excel files, as appropriate for your task.
3. The first time you start Aspen Solubility Modeler, the **Security Warning** window appears.
4. Click **Always trust macros from this publisher**, then click **Enable Macros** to enable Aspen Solubility Modeler to run and prevent this message from appearing.

   If the **Microsoft Excel** window opens and displays the following message:

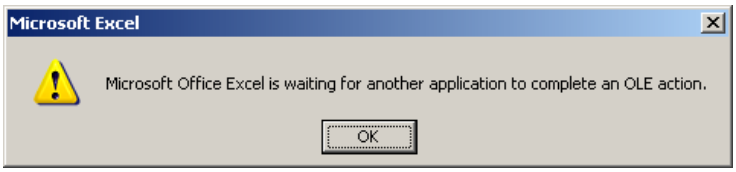
   The workbook contains links to other data sources, if you:

   - Update the links, Excel will attempt to retrieve the latest data,
   - Don’t update the links, Excel will use the previous information
5. Click **Don't Update**. This message is not related to Aspen Solubility Modeler.
6. Some of the workbooks use ActiveX controls to perform special calculations such as property analysis and phase diagrams. If this window appears:



Click **Yes** to enable the ActiveX controls supplied with Aspen Solubility Modeler.

When the network or local computer is slow, it might take up to a few minutes to check out the license or initialize ActiveX controls. During this time, the following message may appear once or several times:



Click **OK** as many times as necessary until the Excel workbook fully initializes.

Aspen Utilities Planner

For Aspen Utilities Planner, you must perform the following installation verification tasks:

- Verify the Aspen Utilities Planner installation on a PC.
- Verify the Aspen Utilities Planner Microsoft Excel Add-in.

Verifying an Aspen Utilities Planner Installation

Use the following procedure to verify an installation of Aspen Utilities on a user PC:

Note: If you have not already done so, restart Windows to activate the changes made to your configuration during the installation.

To verify the installation of the Aspen Utilities Planner V12 product on a user PC:

1. Start **Aspen Utilities Planner**.
2. Open the **Example_HTYPE.auf** file in the Aspen Utilities Planner working folder.
3. On the menu bar, click **Run | Run**.

Aspen Utilities Planner takes a few seconds to run the simulation. The simulation should run with no errors.

Verifying the Aspen Utilities Planner Microsoft Excel Add-in

To verify the Aspen Utilities Planner V12 Microsoft Excel Add-in:

1. Start Microsoft Excel.
2. On the menu click **Aspen Utilities**.
3. Navigate to the Aspen Utilities **Example_HTYPE.auf**.
4. On the menu bar, click **Aspen Utilities** | **Simulate Flowsheet**.
5. Click **YES** on the pop up to create simulation links spreadsheet.

6. After a few seconds a pop-up message box will indicate the completion of simulation.
7. On the menu bar, click **Aspen Utilities**.
8. A dialog box appears requesting confirmation for each of the editors. Click **YES** to create the editors. Aspen Utilities Planner Data Editors are then displayed in Excel.
9. On the menu bar, click **Aspen Utilities**. The optimization should complete with no errors.
10. Close **Aspen Utilities and Microsoft Excel**.

Aspen Utilities On-Line Optimizer

Aspen Utilities On-Line Optimizer is a solution that consists of Aspen Utilities Planner, Aspen Online, and CIMIO. The Aspen Utilities Planner and Aspen Online installation, configuration, and verification are outlined in this document. Please refer to the Aspen Manufacturing Suite for CIMIO documentation.

3 Adding, Repairing, or Upgrading Aspen Products

This chapter describes the procedures for:

- Adding Aspen Engineering products
- Repairing or upgrading previously installed Aspen Engineering products

The process of adding, repairing, or upgrading Aspen Engineering products is the same as installing Aspen Engineering Products. The only difference is that to repair Aspen Engineering Products you must click **Repair** on the **Welcome** screen when it appears.

Note: Before you upgrade *any* existing Aspen product:

- Create forward-compatible backups of your current projects and store them in a safe location. Binary files are not compatible across different versions of Aspen products.
- Create backups of any customizations you wish to retain and store them in a safe location.

Note: When you remove the old version of the Aspen product, the product folder and all of its contents will be deleted.

Aspen OnLine Users

To back up your projects for Aspen OnLine:

1. Launch Aspen OnLine.
2. Click **File** | **Export**. The **Export Project Configuration Information** window appears.
3. On the **Project** tab, set the **Destination Directory** to the directory where you want your old project files to be stored.
4. Click **Export**.

If you have any beta products installed, uninstall them **before** installing the new versions of those products.

Occasionally, a manual change is made to an application file to fix a specific problem. Such a change is referred to as a "hot fix." If a "hot fix" has been made to any currently installed Aspen application, you **must** uninstall the application before installing any service pack or upgrade.

Product Upgrade Task Summary

The following table summarizes the tasks you should perform to prepare for an Aspen software upgrade. An asterisk (*) indicates the recommendation that you keep the previous version on your machine (if there is sufficient disk space) until you are satisfied with the installation of the new version.

Before you upgrade	do this
Aspen Adsorption*	Create language (**.ada**) file versions for forward compatibility and store them in a safe location.
Aspen Batch Process Developer*	Create a backup of project files and store them in a safe location. After you install the latest version, update the existing project files. For instructions, see "**Updating Aspen Batch Process Developer Project Files**" on page 81.
Aspen Chromatography*	Create language (.**cra**) file versions for forward compatibility and store them in a safe location.
Aspen Custom Modeler*	Create language (.**acmf**) file versions for forward compatibility and store them in a safe location.
Aspen Exchanger Design and Rating	Save copies of customized cost files to a safe location.
Aspen OnLine	Remove the older version of Aspen OnLine ***before*** you install the new version.
Aspen Plus Dynamics*	Create language (.dynf) file versions for forward compatibility and store them in a safe location.

Upgrading Aspen Products

To upgrade any Aspen product

1. If desired or necessary (due to disk space or compatibility limitations), remove old versions of Aspen products.
2. Install the upgraded Aspen product. See "Chapter 1: Installing Aspen Products" for specific details.

After You Upgrade

When the installation process is complete, the following Aspen products require additional configuration:

If you upgraded	See
Aspen Batch Process Developer	See "**Updating Aspen Batch Process Developer Project Files**" below.
Aspen Plus	See "**Re-registering CAPE-OPEN Property Packages**" below.
Aspen Properties	See "**Re-registering CAPE-OPEN Property Packages**" below.

Start the new version of the installed Aspen product and open the saved files to make sure they work properly in the new version. For instructions, see the appropriate Aspen product chapter.

After you are satisfied that the new version of the Aspen product is working correctly, uninstall the old version, if necessary.

Updating Aspen Batch Process Developer Project Files

Aspen Batch Process Developer automatically updates previously created projects to a format compatible with new versions.

To convert existing projects to a format compatible with the new version of Aspen Batch Process Developer:

1. After you install the new version of Aspen Batch Process Developer, start Aspen Batch Process Developer.
2. Open an existing project. A message box should appear, indicating that the project is being converted to the new version.

   Note: The conversion process may take some time. Please be patient.
3. When the conversion is complete, verify that your projects have been successfully converted and that your simulation results are accurate.

Now you can uninstall the previous version of Aspen Batch Process Developer and remove your project backup files.

Re-registering CAPE-OPEN Property Packages

You may need to re-register CAPE-OPEN property packages created with versions of Aspen Plus or Aspen Properties that you have uninstalled if they are unavailable when you use the new Aspen Plus or Aspen Properties CAPE-OPEN Thermo System to import a CAPE-OPEN property package. To re-register a CAPE-OPEN property package, locate its .**cota** file and double-click it.

4 Removing Aspen Products

Removing Any Aspen Product

Make sure you save files and customizations in portable formats and in safe locations before uninstalling previous products.

To Remove Aspen Products:

1. Click **Start | Programs | AspenTech | Uninstall AspenTech Software**.

   -or-

   Navigate to the Aspen Uninstaller in C**:\Program Files (x86)\AspenTech\Setup\Uninstall**. The **AspenTech Uninstaller – Select Products** appears.
2. Select the AspenTech products you want to uninstall. Click **Select All** to remove all features listed.
3. Click **Uninstall**. Removal of the selected feature(s) begins.
4. When the removal is complete, click **Close** or **Reboot Now** if a reboot is required on the **AspenTech Uninstaller – Uninstall Progress** dialog box.

After You Remove Aspen Products

Go to the AspenTech or Aspen product directory on the machine to verify that the files have been removed. If necessary, delete any remaining folders manually.

5 Troubleshooting

This chapter contains:

- Information that may help you if you have problems installing Aspen Engineering products.
- Some typical error messages.

Common Problems

The following information may be useful to you if you encountered problems during installation.

Checking Installation Account Privileges

This section contains information about installation account privileges.

- You must be logged on as a **local administrator** to install software on the PC.

Other Troubleshooting Tips

If your installation does not appear to work correctly:

- Ensure you have completed installation of all the required components.
- Ensure you have restarted your server and/or user PC(s).
- If you are installing on a server, remember that whenever you map from the user PC to the server, use the same drive letter.
- If you are performing a server installation, you must have appropriate network access between server and client machines in both directions.

Error Messages

License Errors

Problem	You try to run an Aspen application, and the following message appears: LICENSE VALIDATION/CHECKOUT FAILURE FOR <Aspen Product>
Cause	The licensing for the Aspen product has not been properly installed.

Solutions	Reinstall the license. For instructions, see the *Software License Manager (SLM) Installation and Reference Guide.*

Troubleshooting Installation of Aspen Products

Problems Using Excel After Uninstalling Aspen Basic Engineering

If you attempt to use Excel after uninstalling Aspen Basic Engineering, you may encounter an error. The error may report that it cannot find Aspen Basic Engineering.

If this problem occurs, do the following:

1. Start the MS Excel application.
2. Click **Tools | Add-In**.
3. Clear the **Aspen Basic Engineering** option.

Note: You must do this for each network user PC when Aspen Basic Engineering is uninstalled.

Troubleshooting SQL Server Problems

Configuring the SQL Server for SQL Server and Windows Authentication

If SQL Server or SQL Express is required, it must be configured to use **SQL Server and Windows** authentication mode. For more information, see "**Products that Use Aspen Properties Enterprise Database Server**" on page 43.

Troubleshooting Individual Aspen Products

Troubleshooting Aspen Adsorption, Chromatography, Custom Modeler, and Plus Dynamics

Message	The name specified is not recognized as an internal or external command, operable program, or batch file.
Cause	The **sim_server.exe** program is not located at the location you specified.
Solution	Repeat the verification, specifying the correct location for the **sim_server.exe** program.

Message	The dynamic link library ***filename.dll*** could not be found in the specified path.
Cause	A DLL required to run the **sim_server.exe** program is missing from your system. This is probably caused by a failure during installation.
Solution	Note the name of the DLL and then use the **Search** tool to search your system for the missing DLL.

Message	Process **simserver** failed to start. If you want to see more detail, click the **Details** button.
Cause	The User Rights Policy that allows the user to log on as a batch job has not been granted to the user shown in the error message.
Solution	See "**Configuring a Windows Server as an Aspen Host**" on page 74.

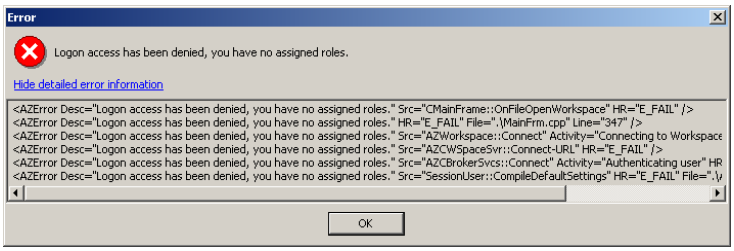
The following error messages may appear on a user PC that is unable to connect to a server:

Message	CreateProcessAsUser: The system cannot find the file specified.(2)
Cause	The program specified does not exist.
Solution	Check that the server code is installed at the location specified; for example, **C:\Program Files\AspenTech\AMSystemV12.0\bin\ sim_server.exe**.

Troubleshooting Aspen Basic Engineering

Problems Using Applications Immediately after an Installation

If you attempt to open Aspen Basic Engineering applications immediately after installation, and have not yet rebooted your PC or server, the following error message may appear:



If these messages appear:

1. Exit all Aspen Basic Engineering applications and log out of windows.
2. Log back into Windows.
3. Open your Aspen Basic Engineering applications.

Manually Restart the ABE Broker Service

If the following error message appears during the install, you can start the broker manually once the installation has completed:

Error starting service AZ370Broker. The service did not start due to a logon failure.

The most common cause of this is an invalid password specified in the Aspen Basic Engineering Broker dialog box during the install. Use this sequence to start the broker service:

Check the Password

Ensure the user account password is valid and meets your company's current network password policy:

1. Using the username and password given in the Aspen Basic Engineering Broker setup dialog, try logging into the local machine. If the user account fails to log in, it is likely that the password you have does not meet your network password policy. If the account is not on the Local Machine, contact your network administrator for assistance. If it is a Local User account, follow the changing the user account password procedure below.
2. Change the user account password if necessary:
3. Right click **My Computer** and select **Manage** or go to **Control Panel** | **Administrative Tools** | **Computer Management**.
4. In the left pane, click **Local Users and Groups**, and then click **Users**.
5. Right-click the user used to run the Zyqad broker; then click **Set Password**. Enter and confirm a new password. If you have problems with this, contact your network administrator for assistance.
6. Additionally, if you are reinstalling the ABE server using a new system password, the old server password will persist after the new install. You must manually reconfigure the **Aspen Zyqad [xxx] Server** to use the new password.
   In the **Control Panel** > **Administrative Tools** > **Component Services** dialog box, click **Computers** > **My Computer** > **DCom Config**. Select **Aspen Zyqad [xxx] Server** and right-click **Properties**. Click the **Identity** tab. Enter the updated password under the user name field. Click OK**.**

Ensure the user is a member of the Zyqad Administrator group:

1. Right click **My Computer | Manage** or go to **Control Panel** | **Administrative Tools** | **Computer Management**.
2. In the left pane, click **Local Users and Groups**; then click **Groups**.
3. Right-click **ZyqadAdministrators**; then select **Add to Group** or click **ZyqadAdministrators**; then go to **Action** | **Add to Group**.
4. In the list of members, see if the user you want to run the Zyqad Broker is listed. If the user is not, click **Add**. In **Look in:**, click the domain the user is in. If it is a Local User account, this will be the computer name. On the list, click the user; then and click **Add** or, alternatively in the bottom textbox, type the **DOMAIN\USERACCOUNT**; then click **Check Names**.

Restart the Aspen Basic Engineering Broker Service:

1. Navigate to the **DataServices\Bin** directory.
2. Copy the following into the command prompt and press **Enter** (replace where necessary):

   AZ370Broker.exe/regServer

   AZ370Broker.exe /Install /Service /AdminGroup ZyqadAdministrators /RunAs [AZ_USER] /Password [AZ_UserPass] /WorkspacesFolder [PathtoWorkspaces] /LibrariesFolder [pathtolibfolder] /ExampleWorkspace [AZ131]

   where:

   [AZ_USER] = The user you just added to the ZyqadAdministrators (if not a Local User account include the domain for example, domain1\user).

   [AZ_UserPass] = The password given to that user account.

   [PathtoWorkspaces] = The full path in "s to the workspaces folder.

   [pathtolibfolder] = The full path in "s to the WorkspaceLibraries folder.

   [AZ370] = Whatever you want to call the example workspace

   Note: You do not need to provide /ExampleWorkspace [AZ370] if you do not want an example workspace.

Check that the Aspen Basic Engineering Broker Service has started:

1. Right-click **My Computer** | **Manage** or go to **Control Panel** | **Administrative Tools** | **Computer Management**.
2. In the left pane, expand **Services and Applications**; then click **Services**.
3. In the right pane, examine the services to see if the service AZ370Broker has started.

Problems Logging On to ABE Workspace from Aspen Plus/HYSYS

You may be unable to log on to a workspace using the web enabled client applications even with a valid user name and password. To solve this

problem, make sure that your web server URL is entered as a trusted site for Internet Explorer:

4. Open **IE Options**.
5. Go to the **Security** tab.
6. Add **http://localhost** to either Trusted Sites or Intranet sites.

Note: If you add the URL to the intranet zone, you will automatically be logged on. If you add it to Trusted sites, make sure to select the Automatic Logon with current user name and password for the Trusted site security settings.

Troubleshooting Aspen Batch Process Developer

Aspen Batch Process Developer has the following special troubleshooting procedures.

Problem	You cannot generate Excel reports.
Cause	This can occur when certain system files shared by Aspen Batch Process Developer and Excel are not properly registered.
Solution	You can avoid this problem by following the installation instructions for Excel *before* installing Aspen Batch Process Developer. Unfortunately, if you have already experienced this problem, you must start over: 1. Uninstall Aspen Batch Process Developer by following the instructions in "Chapter 4: Removing Aspen Products." 2. Uninstall Microsoft Office. 3. From Windows Explorer or File Manager, manually delete the files in **C:\Program Files\Common Files\Microsoft Shared\Dao.** These are the system files that are not properly registered. 4. Reinstall Microsoft Office, ensuring that the **Data Access** option for Excel is selected. 5. Reinstall Aspen Batch Process Developer.

Problem	You cannot generate Visio diagrams.
Cause	This can occur if the PC has not rebooted after Aspen Batch Process Developer or Visio installation, or if Visio cannot locate the **Add-ons** path when Visio is launched.
Solution	You can avoid the first problem by rebooting your PC after installation. If Visio cannot locate the **Add-ons** path when it is launched, select the check box in the **Launch Visio** dialog box that appears when you launch the equipment diagram from Aspen Batch Process Developer. This resets the Visio **Add-ons** path and restarts Visio, which should then generate the diagram correctly.

Troubleshooting Aspen Plus

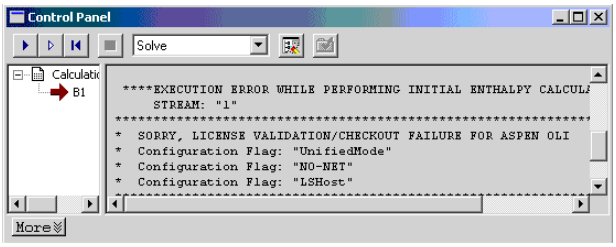
Configuring the SQL Server for SQL Server and Windows Authentication

If SQL Server or SQL Express is already installed before installing AspenTech products, it must be configured to use **SQL Server and Windows** authentication mode.

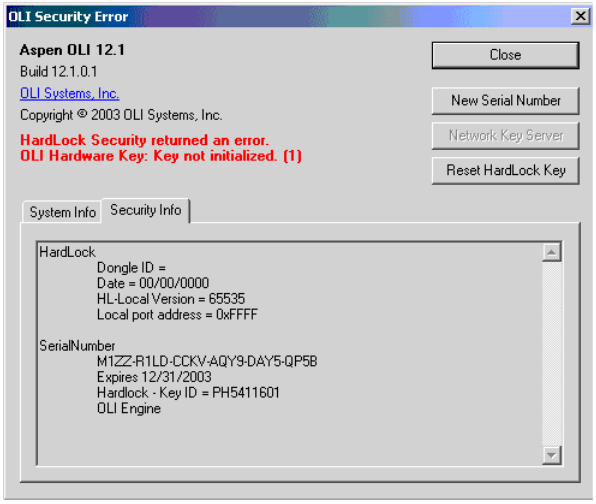
Troubleshooting Aspen OLI

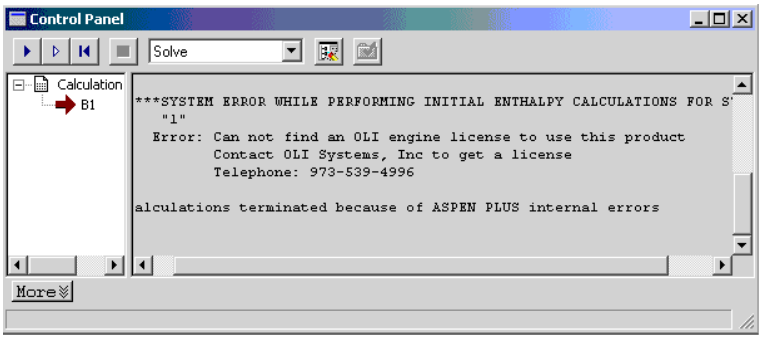
Error messages resulting from the Software License Manager's not finding a license, and/or the OLI Security system's not installing correctly will clearly identify which one is not functioning properly.

If the Software License Manager is not functioning correctly, the error message that appears on the Aspen OLI control panel will be as shown below:



Similarly, incorrect functioning of the OLI Security System will refer to the **OLI Security** and **OLI Engine** in the error messages. Both types of messages are shown below.





Dongle Not Attached Properly

You see an error message from the OLI Security System indicating that the dongle is not attached properly. In the OLI Security Error figure above, the red text indicates "key not initialized".

Solution

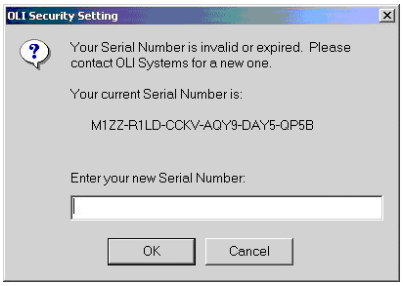
Check the dongle to make sure it is attached to your computer firmly. Also, ensure that the dongle is the first one in the port if you have more than one dongle attached to this same port.

Serial Number Does Not Match with the Dongle

You see an error message from the OLI Security System indicating that the serial number does not match with the dongle.

Solution:

1. On the **OLI Security Error** dialog box, click **New Serial Number**. The **OLI Security Setting** message box appears. It displays your current serial number.



2. Check this number to ensure that it matches the number provided to you. If it was typed incorrectly, then retype it in the **Enter your new Serial Number** field.
3. If this does not work, the error message reappears, and you must contact OLI for a new number.

Troubleshooting Aspen Remote Simulation Server

When running Aspen Remote Simulation Server (ARSS), you may encounter the following problems.

Problem	Administrator Access Privileges Required
Cause	You do not have proper access privileges for running ARSS.
Solution	During the installation of ARSS, you are prompted for login information (username, password, domain) that will be used when the ARSS service in starts up in Windows. The login account that you provide needs to have administrator access privileges.

Problem	Possible Security Issues with the Windows Firewall
Cause	Your firewall is not configured for ARSS.
Solution	1. The firewall in Windows must be configured to allow communication between applications on the client and server. 2. ARSS must be added to the application exceptions list in the Windows Firewall settings. 3. The port (9011 by default) that ARSS uses for communication also needs to be added to this list.
Comments	1. If communication between client and server is still not working, then you can test whether the firewall settings are the problem by temporarily turning off the firewall on your server and see if that enables communication. 2. If you are still having trouble communicating with the ARSS on Windows, then turn off User Account Control. This can be accessed in the **User Accounts** section of Control Panels.

Troubleshooting Aspen Simulation Workbook

When running Excel with Aspen Simulation Workbook, you may encounter the following problems.

Problem	After installing Aspen Simulation Workbook, the Simulation Workbook toolbars do not appear in early versions of Excel.
Cause	You may have clicked the mouse on other objects while the system was trying to establish a connection.
Solution	In early versions of Excel, click **View | Toolbars** to see a list of the toolbars. Click the Aspen Simulation Workbook Design and Aspen Simulation Workbook Run toolbars to make them active. If the toolbars are not included in the list, Excel may have disabled Aspen Simulation Workbook. Go to the next item in this table.

Problem	After installing Aspen Simulation Workbook, the **Aspen Simulation Workbook** Toolbars are not available in the toolbar list, and the **Aspen** menu does not appear on the Excel pull-down menu structure.
Cause	Excel may have disabled Aspen Simulation Workbook. This usually happens if the workbook is not registered correctly and fails to load.

	This may have occurred because Excel was open when the workbook was installed.
Solution	To check: 1. Open Excel. 2. Click the **File** menu. 3. Select **Options**. 4. Select **Add-Ins**. 5. Select **Manage: Disabled Items**; then click **Go**. 6. If Aspen Simulation Workbook appears in the list of disabled items, select it, then click **Enable**. 7. If the problem persists, users (running as administrators) can manually register Aspen Simulation Workbook using the following command from a **DOS** window. **Note**: Shut down all instances of Excel before running this command): regsvr32 "%ProgramFiles%\AspenTech\Aspen Simulation Workbook V12.0\ASWXLAddinLoader.dll".

Problem	After installing Aspen Simulation Workbook, the **Aspen Simulation Workbook** Toolbars are not available in the toolbar list and the **Aspen** menu does not appear on the Excel pull-down menu structure.
Cause	Aspen Simulation Workbook Add-In may be disabled. This usually happens if the workbook is not registered correctly and fails to load. This may have occurred because Excel was open when the workbook was installed.
Solution	To check: 1. Close Excel. 2. Open Aspen Excel Add-In Manager, which is available from the Aspen Engineering Tools Start menu. 3. If Aspen Simulation Workbook V12 is cleared, select the check box to the left; then click **OK**. If Aspen Simulation Workbook V12 is selected, clear it and click **OK**; rerun the Aspen Excel Add-in Manager and re-select Aspen Simulation Workbook V12 and click **OK.**

Troubleshooting Aspen Solubility Modeler

When launching Aspen Solubility Modeler, you may encounter the following problem.

Problem	While launching Aspen Solubility Modeler, you get the error message "Compile error in hidden module: This Workbook."
Cause	Aspen Properties V12 add-in is not registered.
Solution	See "**Configuring an Aspen Solubility Modeler Installation**" on page 75 for complete instructions for registering the Aspen Properties V12 add-in in Excel.

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